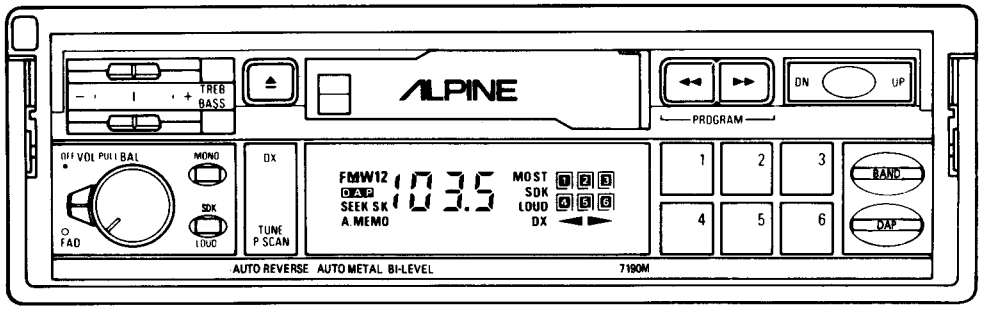
ALPINE SERVICE MANUAL

Digital FM / MW / LW Cassette

— REVISED —

- **Serial Numbers after**
  No. 00910501 for 7190M model.
  No. 00916501 for 7190L model.
- **This service Manual contains only the differences from the Service Manual of Model 7190M/7190L (68P30584W02).**
- **For the cassette deck mechanism parts (GT75L020) of this model, refer to the GT Series Service Manual (Part No. 68P92539F05).**



(7190M)

7190M/7190L

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Disassembly Instructions
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FM Tuner Schematic Diagram
Block Diagram
} Refer to the Service Manual 7190M/7190L (68P30584W02)

Additional Schematic Diagram Inserted.

Specifications

FM RADIO

Intermediate Frequency	10.7 ± 0.1MHz
Frequency Range	87.5 to 108MHz
Usable Sensitivity (Stereo at 98.1MHz)	19.2dBf
S/N Ratio (Stereo at 98.1MHz)	50dB
Image rejection (at 106.1MHz)	40dB
IF Rejection (at 90.1MHz)	60dB
Distortion (Input 1mV at 98.1MHz)	1%
Frequency Response (Ref. 400Hz)	100Hz : 0 ± 3dB 10kHz : -12 ± 3dB
Stereo Separation (at 1,000Hz)	25dB
Limiting Sensitivity (at 98.1MHz)	20.2 ± 6dBf
SK Sensitivity (at 98.1MHz)	25.2dBf (7190M Model Only)

MW RADIO / LW RADIO / GENERAL : Refer to the Service Manual 7190M/7190L (68P30584W02).

NOTE : Due to continuing product improvement, specifications and designs are subject to change without notice.

Adjustment Procedures

1. MW / LW SECTION

(1) Dummy Antenna

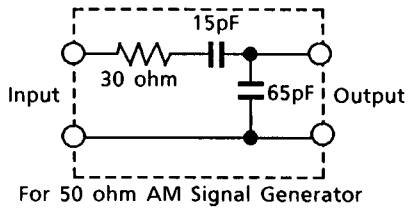


Figure 1

(2) Connections

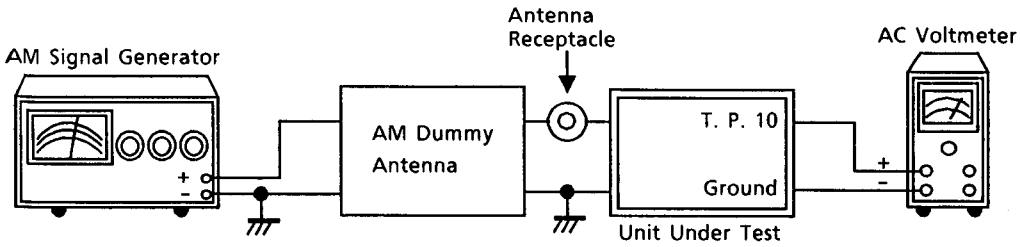


Figure 2

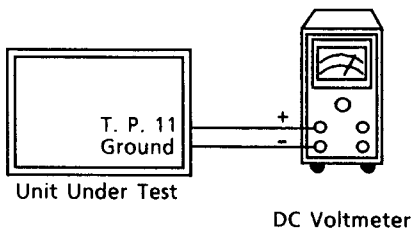


Figure 3

(3) Location of Adjustment Parts
See Adjustment Locations.

(4) Control Settings

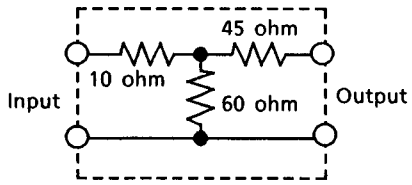
Power Switch	ON	Balance Control	Mechanical Center
Band Select Switch	MW	Treble / Bass Control	Mechanical Center
Others	OFF	Fader Control	Front Position

(5) Adjustment Procedures

Step	Description	Connection	Signal Generator	Dial Control	Adjustment
1	Band Covering	Figure 3	—	MW : 1,602kHz	Adjust T008 for 7.5 ± 0.5V Output at T.P. 11.
2	IF and Tracking Adjustment	Figure 2	999kHz, 20dB	MW : 999kHz	Adjust T003, 004, 005 for Maximum Output at T.P. 10.

2. SDK Section (7190M Model Only)

(1) Dummy Antenna



For 50 ohm FM Signal Generator

Figure 4

(2) Connections

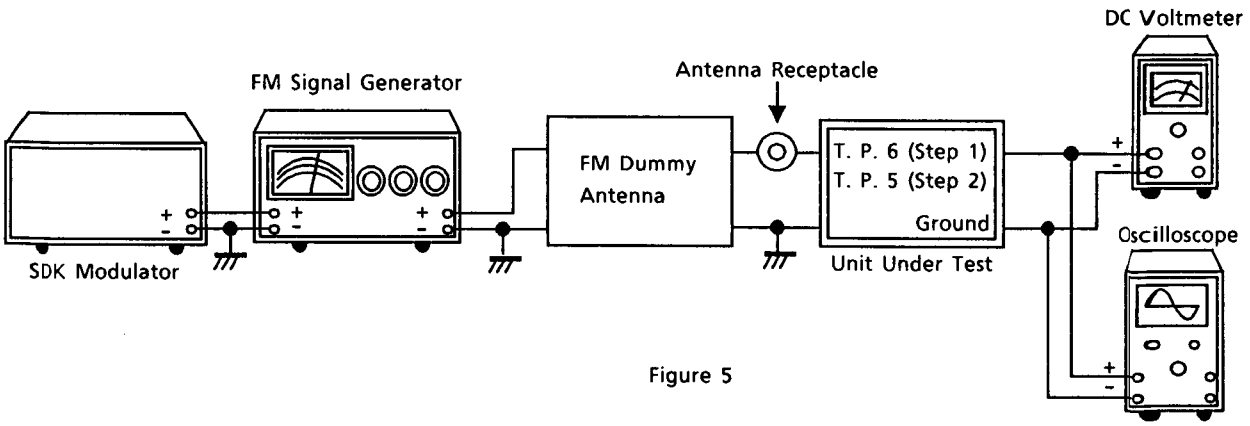


Figure 5

(3) Location of Adjustment Parts
See Adjustment Locations.

(4) Control Settings

Power Switch ..... ON
Band Select Switch ..... SDK
Balance Control ..... Mechanical Center
Treble / Bass Controls .... Mechanical Center
Fader Control ..... Front Position
Others ..... OFF

(5) Adjustment Procedures

Step	Description	Connection	Signal Generator	Dial Control	Adjustment
1	SK Adjustment	Figure 5	98.1MHz, 26dBμ (SK, BK : ON DK : OFF)	98.1MHz	Adjust L701 for Maximum Output at T. P. 6.
2	DK Adjustment	Figure 5	98.1MHz, 66dBμ (SK, BK, DK : ON)	98.1MHz	Adjust VR701 for Maximum Output at T. P. 5.

3. FM SECTION

(1) Dummy Antenna

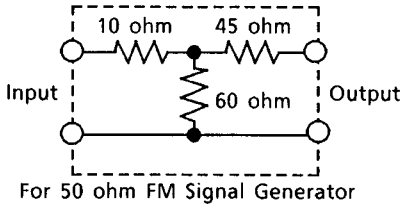


Figure 6

(2) Connections

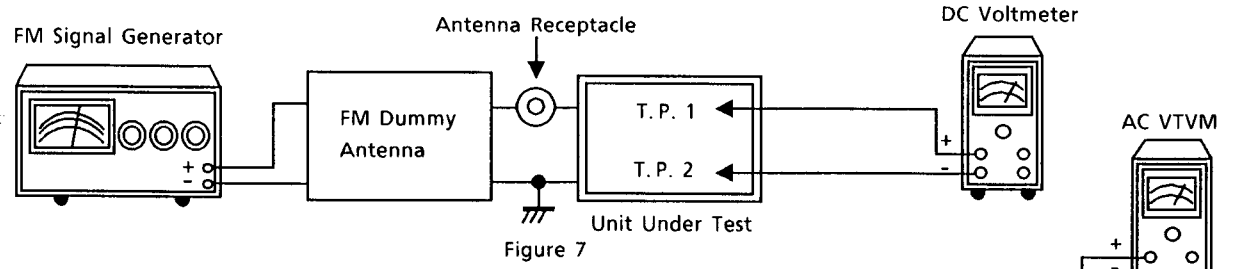


Figure 7

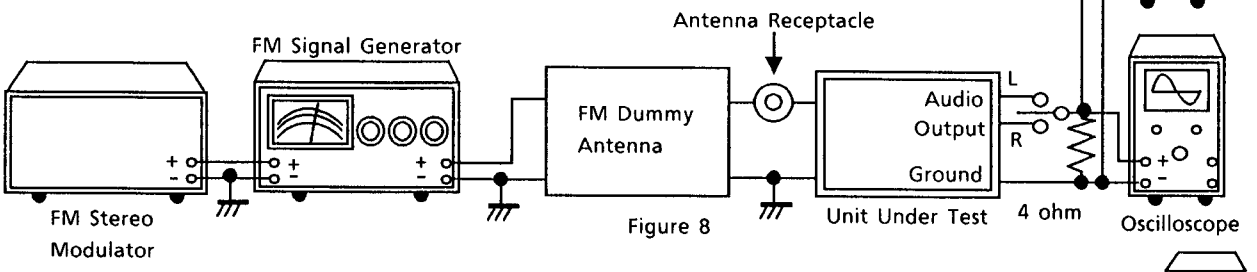


Figure 8

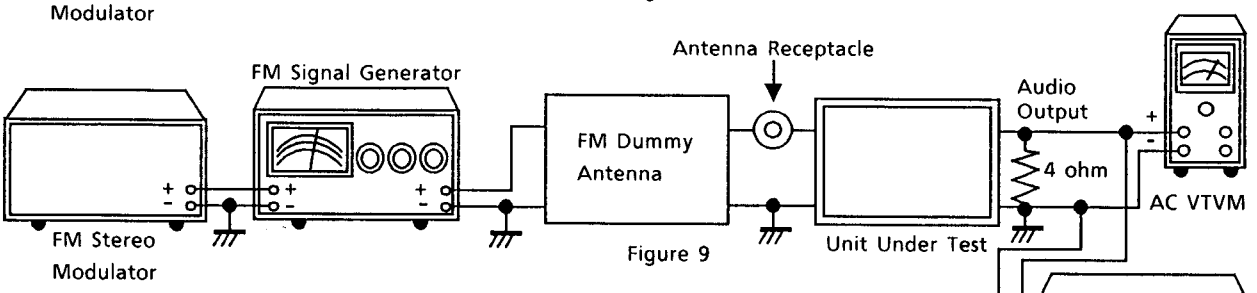


Figure 9

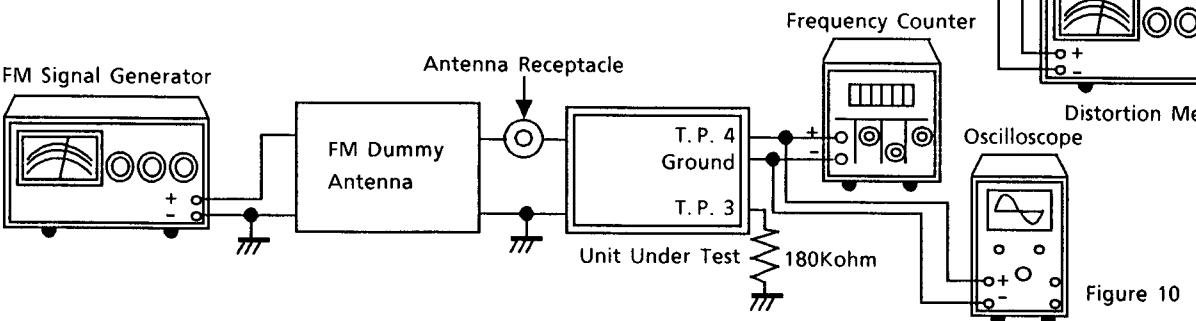


Figure 10

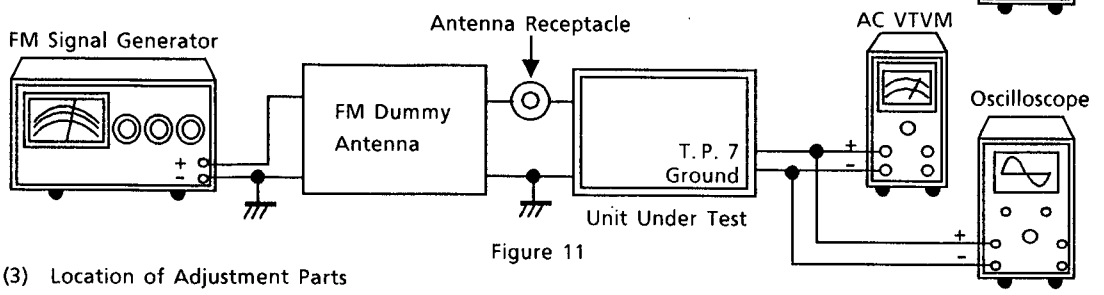


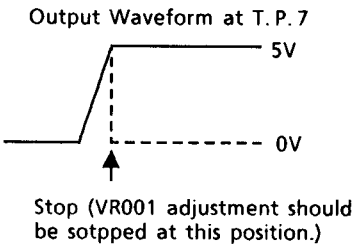
Figure 11

(3) Location of Adjustment Parts
See Adjustment Locations.

(4) Control Settings

Power Switch	ON	Balance Control	Mechanical Center
Band Select Switch	FM	Treble / Bass Control	Mechanical Center
Others	OFF	Fader Control	Front Position

(5) Adjustment Procedures

Step	Description	Connection	Signal Generator	Dial Control	Adjustment
1	IF Adjustment	Figure 7	98.1MHz, 72dBμ (Mono Signal, No Modulation)	98.1MHz	Adjust T007 for 0 ± 30mV between T. P. 1 and 2.
2	VCO Adjustment	Figure 10	98.1MHz, 72dBμ (Mono Signal, No Modulation)	98.1MHz	Adjust VR002 for 19 ± 0.05kHz curve at T. P. 4.
3	Separation Adjustment	Figure 8	98.1MHz, 72dBμ, 1,000Hz R (L) Signal, Modulation	98.1MHz	Adjust VR003 for minimum at Lch. (Rch.) output.
4	FM Stereo Blend Adjustment	Figure 9	98.1MHz, 72dBμ L Signal	98.1MHz	Adjust VR203 (VOLUME) for 2V at Lch. output.
			98.1MHz, 46dBμ L Signal	98.1MHZ	Adjust VR004 for 10 ± 3 dB Separation.
5	Seek Stop Adjustment	Figure 11	98.1MHz, 27dBμ (Mono Signal, NO Modulation)	98.1MHz	Adjust VR001 so that output waveform at T.P.7 changes Low level (0V) to High level (5V) as shown in Figure below. 

4. TAPE SECTION

(1) Connection

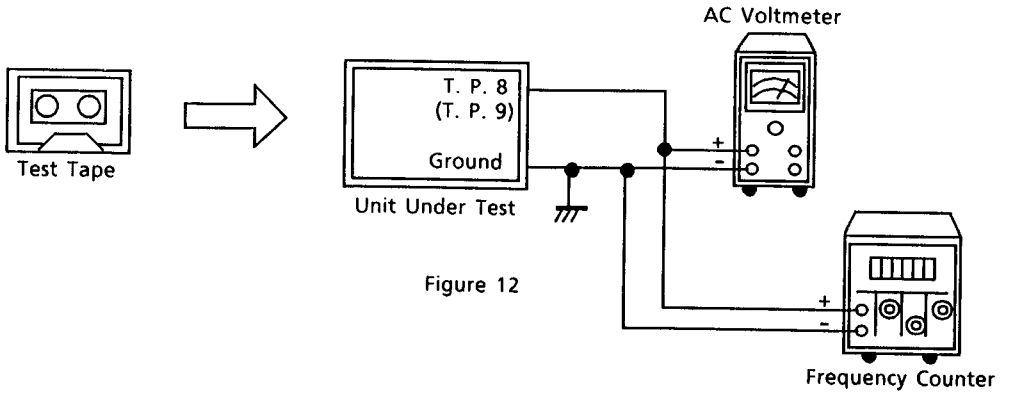


Figure 12

(2) Location of Adjustment parts
See Adjustment Locations

(3) Control Settings

Power Switch ..... ON
Fader Control ..... Front Position
Balance Control ..... Mechanical Center
Treble / Bass Control .... Mechanical Center
Others ..... OFF

(4) Adjustment Procedures

Step	Description	Test Tape	Connection	Test Point	Adjustment Point	Adjustment
1	Head Azimuth Adjustment	MTT-114NB (14kHz)	Figure 12	T. P. 8 T. P. 9	Head Azimuth Adjustment Screw (Figure 13)	Adjust for maximum and same level output at normal and reverse positions.
2	Tape Speed Adjustment	MTT-111 (3kHz)	Figure 12	T. P. 8 or T. P. 9	Tape Speed Adjustment (Figure 14)	Adjust for 3,030-3,080Hz.

Parts Layout on P.C.Boards and Wiring Diagram (7190M Model)

Metal SW P.C.Board

GT Control P.C.Board

Motor (M1101)

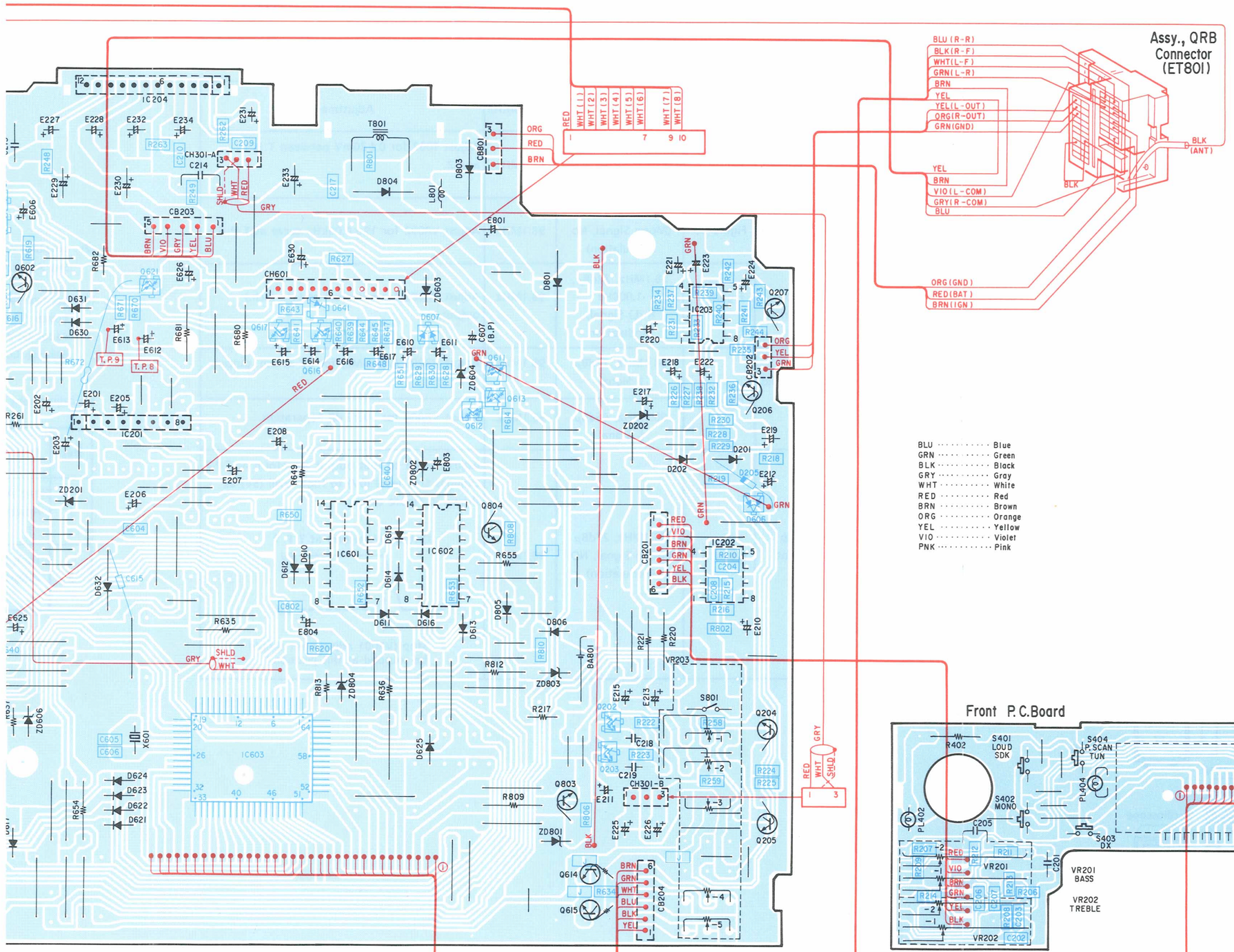
Play Solenoid (SD1101)

Head P.C.Board

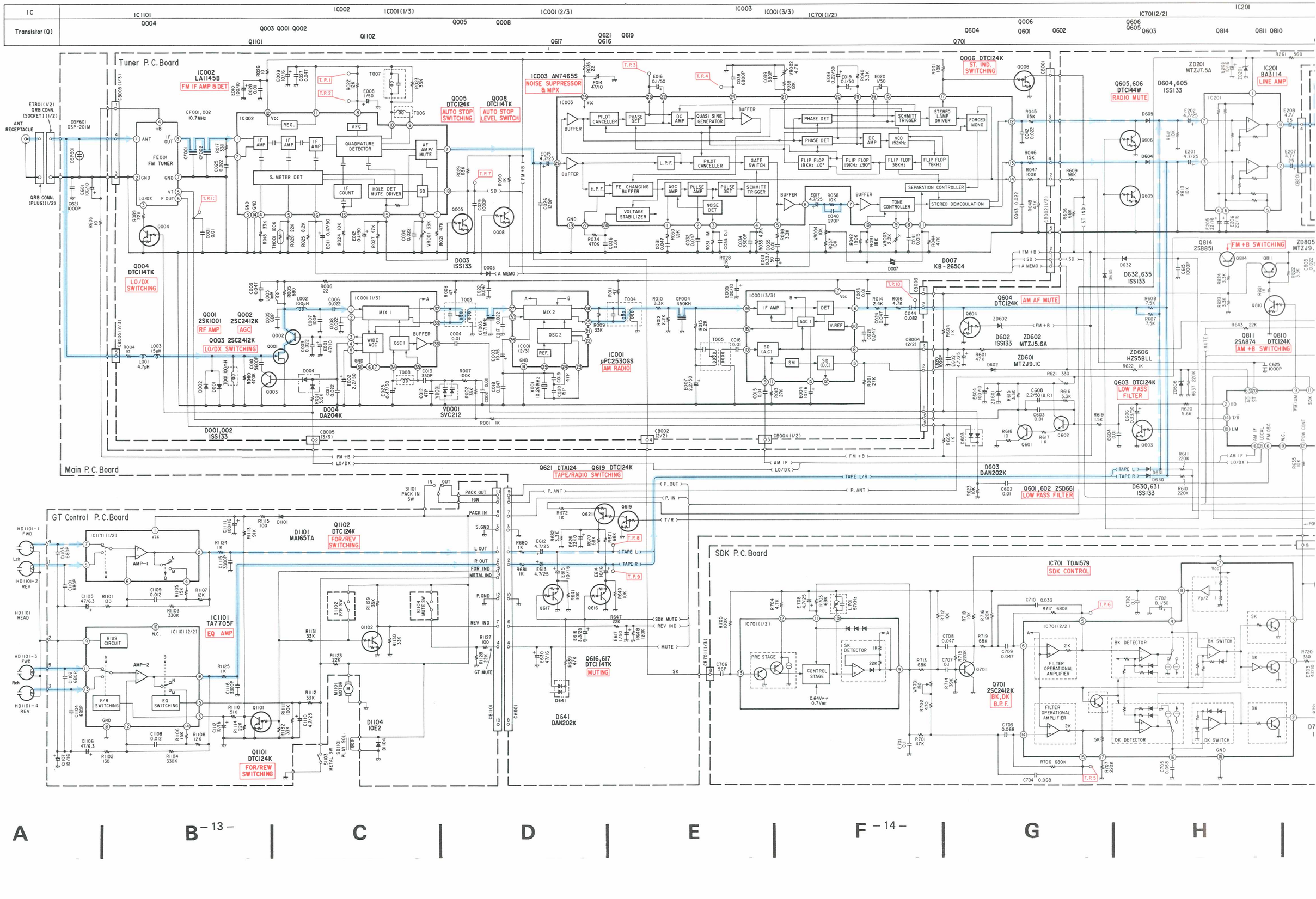
SDK P.C.Board

Tuner P.C.Board

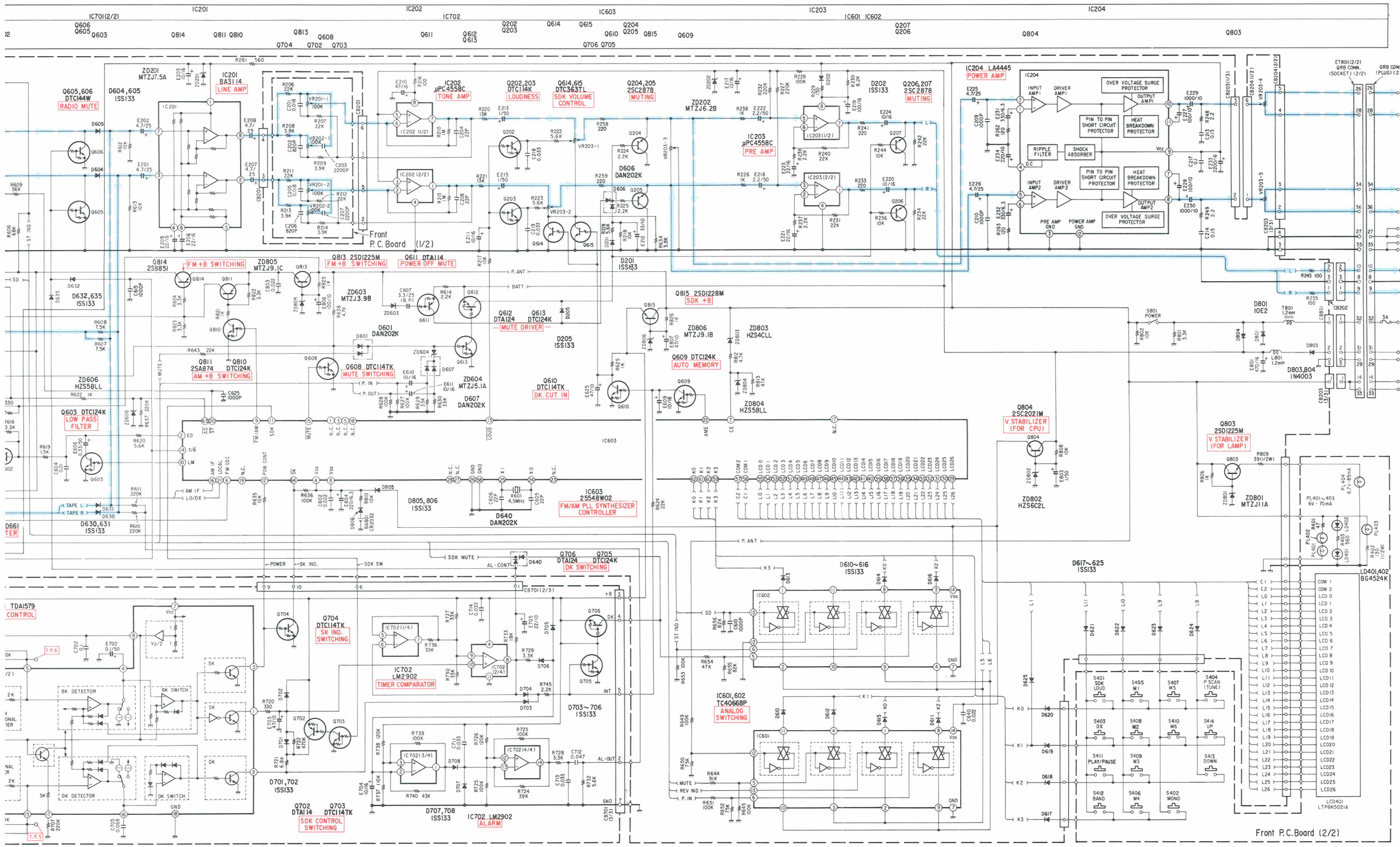
Main P.C.Board


IC204
T801
CH301-A
C214
CB203
BRN VIO GRY YEL BLU
SHLD WHT RED
GRY
CB801
ORG RED BRN
D803
D804
L801
E801
E630
CH601
R627
ZD603
D801
BLK
Q602
D631
D630
E613 E612
T.P.9
T.P.8
R681
R680
E615 E614 E616
E610 E611 E617
D607
C607 (8.P)
ZD604
Q611
Q613
Q612
RED
E201 E205
IC201
E208
E207
R649
ZD802
E803
ZD201
E206
C604
C615
D632
E625
R635
GRY SHLD WHT
R620
IC601
IC602
D615 D610 D612 D614
D611 D616 D613
E804
C802
Q804
R808
R655
J
D805
D806
R810
R812
ZD803
BA801
R813
ZD804
R636
R217
D625
C605 C606
X601
IC603
D624 D623 D622 D621
R654
Q803
R809
ZD801
R806
BLK
Q614
Q615
BRN GRN WHT BLU BLK YEL
CB204
E215 E213
Q202
Q203
R222
C218
R223
C219
CH301-B
E211
E225 E226
R221 R220
VR203
S801
R258 R259
-1 -2 -3 -4 -5
Q204
Q205
R224 R225
RED WHT SHLD GRY
E221 E223
GRN
R242 R239 R240 R241 R243 R244
E224
Q207
IC203
R234 R237 R231 R238
E220
ORG YEL GRN
CB202
Q206
E218 E222
R235 R236
R226 R227 R233 R232
E217
ZD202
R230 R228 R229
D201
D202
E219
R218
D205
E212
R219
GRN
Q606
RED VIO BRN GRN YEL BLK
CB201
IC202
R210 R215 R208 R216 R802
C204
E210
BLU (R-R)
BLK (R-F)
WHT (L-F)
GRN (L-R)
BRN
YEL
YEL (L-OUT)
ORG (R-OUT)
GRN (GND)
YEL
BRN
VIO (L-COM)
GRY (R-COM)
BLU
ORG (GND)
RED (BAT)
BRN (IGN)
Assy., QRB Connector (ET801)
BLK (ANT)
BLK
RED WHT (1) WHT (2) WHT (3) WHT (4) WHT (5) WHT (6) WHT (7) WHT (8)
1 7 9 10
BLU ..... Blue
GRN ..... Green
BLK ..... Black
GRY ..... Gray
WHT ..... White
RED ..... Red
BRN ..... Brown
ORG ..... Orange
YEL ..... Yellow
VIO ..... Violet
PNK ..... Pink
Front P.C.Board
R402
S401 LOUD SDK
S402 MONO
S404 P.SCAN TUN
S403 DX
PL402
PL404
C205
R207 R212 R211 R209 R214 R206 R208 R213 C206 C207 C203
VR201
VR202
C201
C202
VR201 BASS
VR202 TREBLE
LCD401
S406 M4
S407 M5
S410 M6
S411 PLAY/PAUSE
R401
PL401
PL403
S409 M3
S412 BAND
S405 M1
S408 M2
LD402
LD401
R403
S413 DOWN
S414 UP

Schematic Diagram (7190M Model) (Refer to page 25, 26 for IC's and Transistors voltage values.)

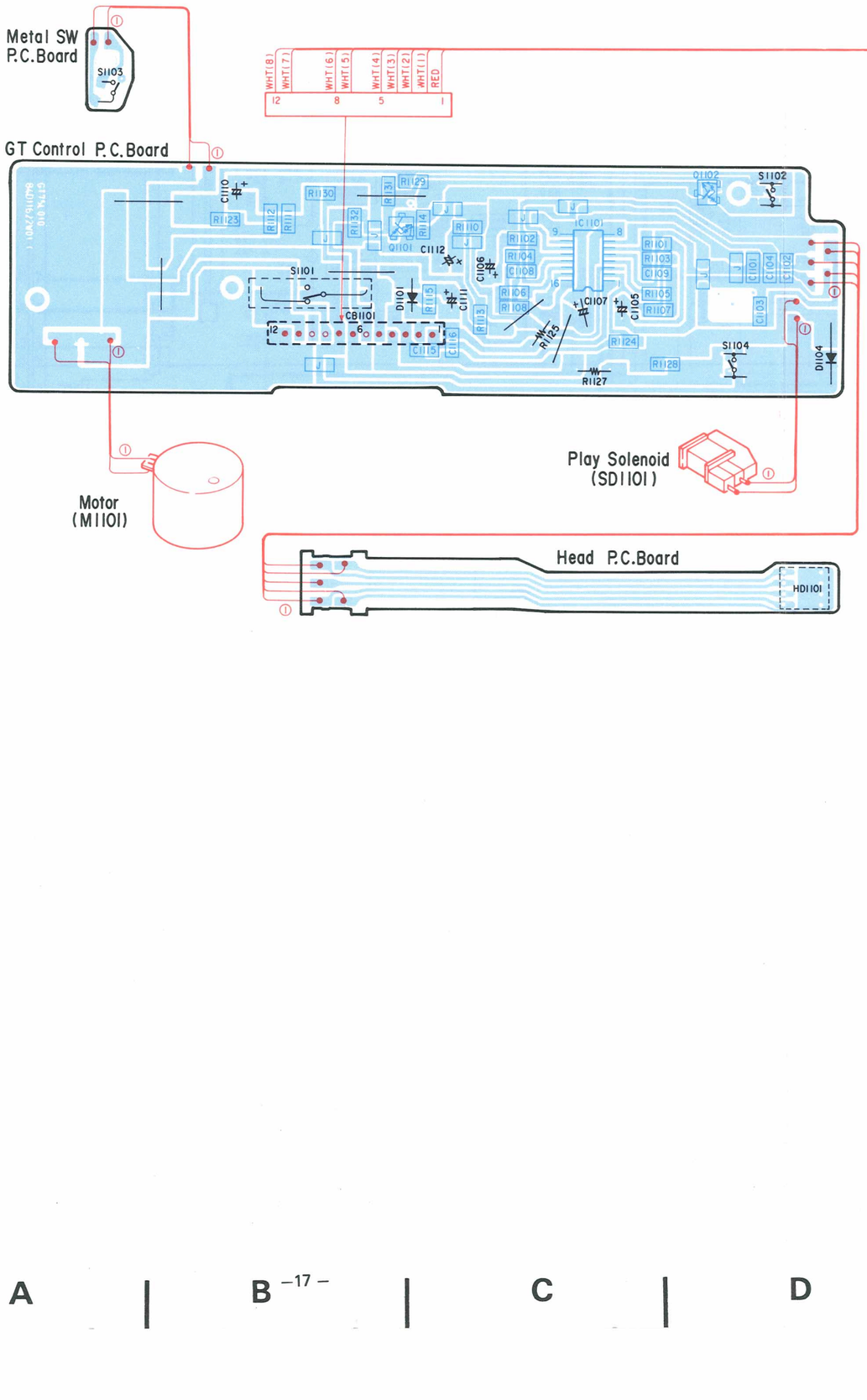


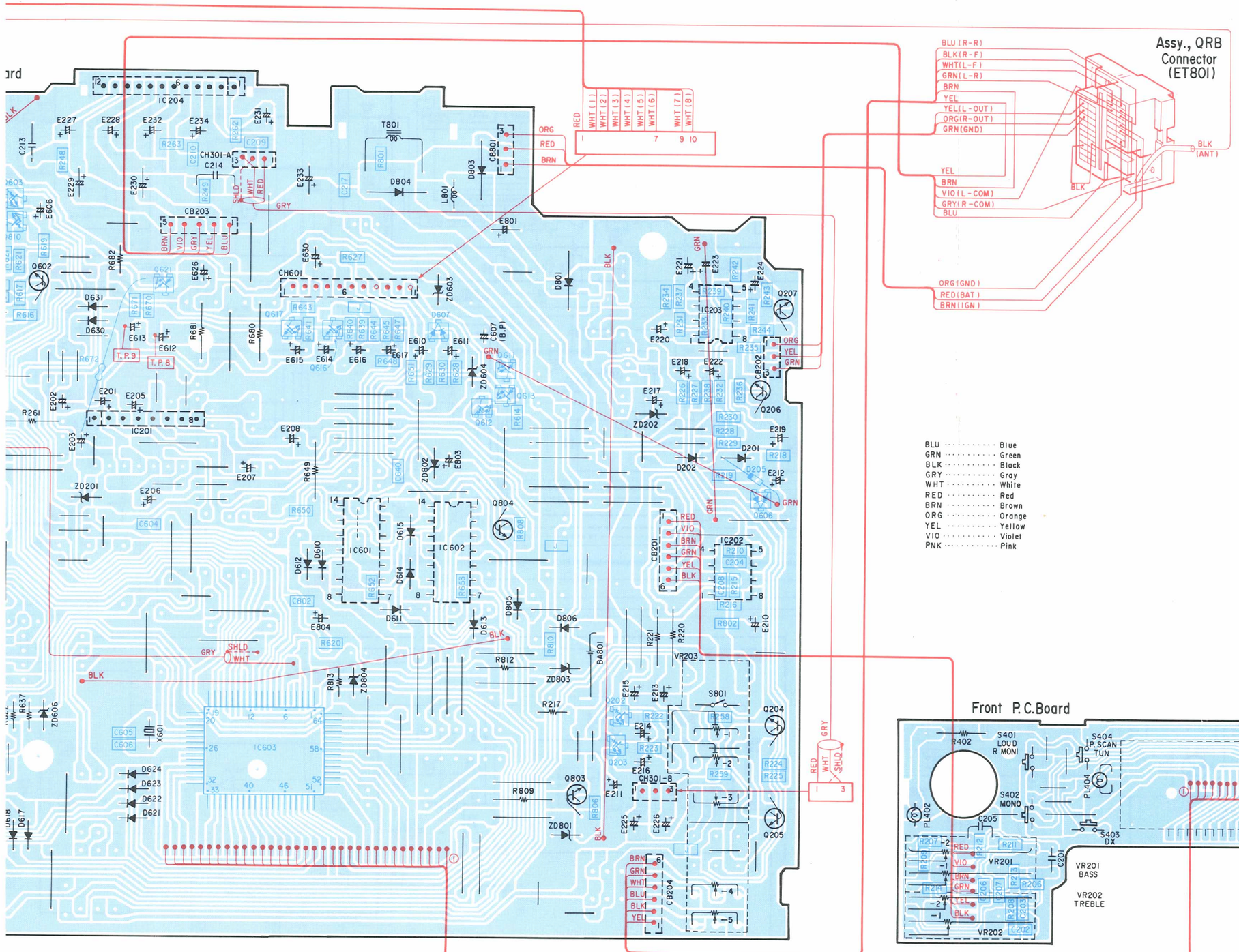
NOTE:
1. All resistance values are in ohms. K= 1,000 M= 1,000,000
2. All capacitance values are in microfarads. P= 1/1,000,000

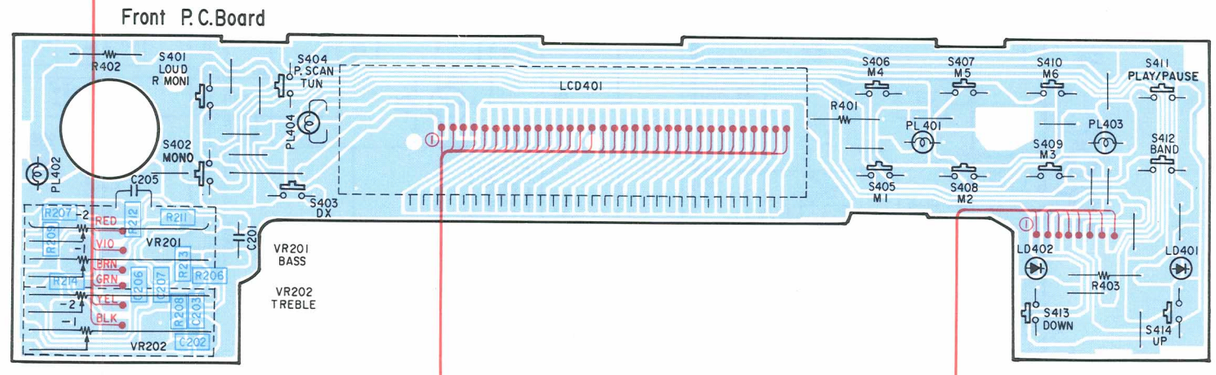


H I J K L M N O

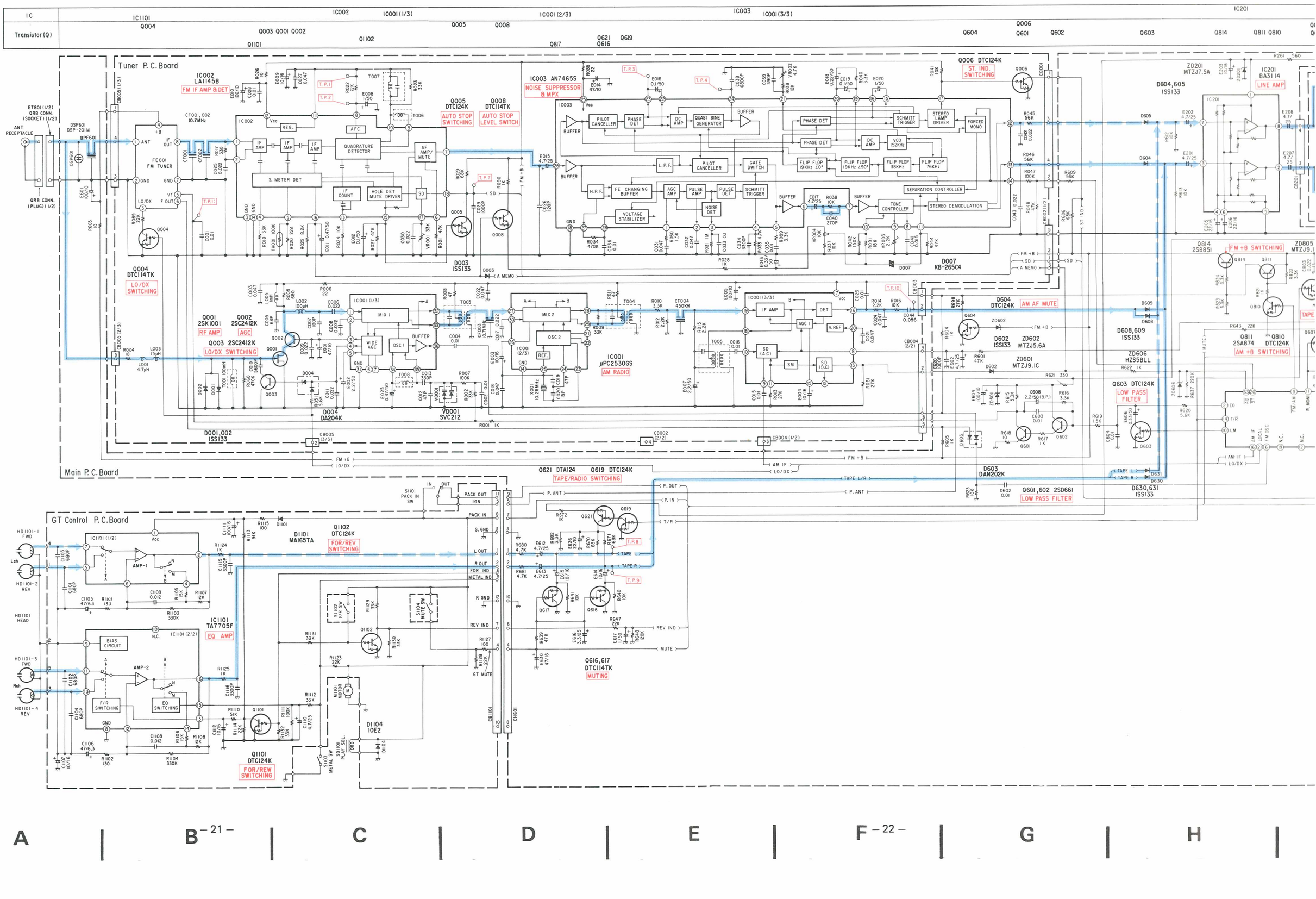
Parts Layout on P.C.Boards and Wiring Diagram (7190L Model)



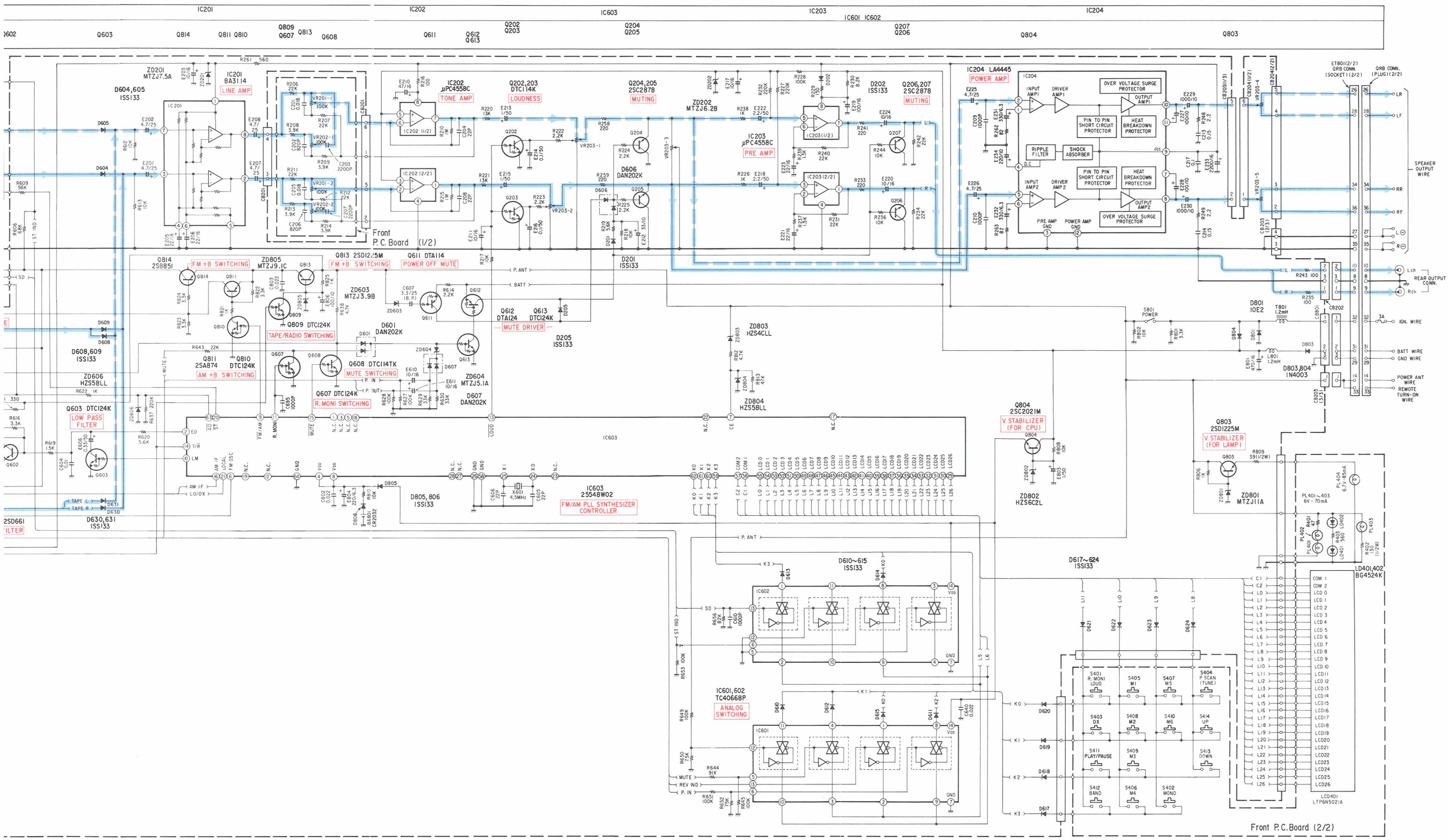

IC204
IC201
IC601
IC602
IC603
IC203
IC202
CH301-A
CH601
CB203
CB8201
CB8202
CB201
CB204
T801
L801
D801
D803
D804
BA801
Q602
Q617
Q616
Q613
Q612
Q804
Q803
Q207
Q206
Q202
Q203
Q204
Q205
ZD603
ZD607
ZD604
ZD202
ZD201
ZD802
ZD803
ZD804
ZD801
ZD606
D201
D202
D606
X601
S801
VR203
VR201
VR202
BASS
TREBLE
T.P.9
T.P.8
ORG
RED
BRN
GRY
SHLD
WHT
BLK
GRN
YEL
VIO
BLU
RED
WHT(1)
WHT(2)
WHT(3)
WHT(4)
WHT(5)
WHT(6)
WHT(7)
WHT(8)
BLU(R-R)
BLK(R-F)
WHT(L-F)
GRN(L-R)
BRN
YEL
YEL(L-OUT)
ORG(R-OUT)
GRN(GND)
YEL
BRN
VIO(L-COM)
GRY(R-COM)
BLU
ORG(IGN)
RED(BAT)
BRN(IGN)
BLK(ANT)
Assy., QRB Connector (ET801)
BLU ..... Blue
GRN ..... Green
BLK ..... Black
GRY ..... Gray
WHT ..... White
RED ..... Red
BRN ..... Brown
ORG ..... Orange
YEL ..... Yellow
VIO ..... Violet
PNK ..... Pink


Front P.C.Board
S401 LOUD R MONI
S402 MONO
S403 DX
S404 P.SCAN TUN
S405 M1
S406 M4
S407 M5
S408 M2
S409 M3
S410 M6
S411 PLAY/PAUSE
S412 BAND
S413 DOWN
S414 UP
LCD401
PL401
PL402
PL403
PL404
LD401
LD402
VR201 BASS
VR202 TREBLE

Schematic Diagram (7190L Model) (Refer to page 25, 26 for IC's and Transistors voltage values.)



NOTE:
1. All resistance values are in ohms. K= 1,000 M= 1,000,000
2. All capacitance values are in microfarads. P= 1/1,000,000



7190M/7190L 7190M/7190L

IC's and Transistors Voltage Values

IC001

Pin	Voltage	Pin	Voltage
1	3.2V	19	3.59V
2	3.2V	20	3.7V
3	2.4V	21	4.59V
4	1.26V	22	4.85V
5	1.26V	23	4.89V
6	1.87V	24	4.3V
7	1.87V	25	5.86V
8	1.87V	26	5.95V
9	0V	27	3.36V
10	5.78V	28	3.36V
11	5.16V	29	8.4V
12	0V	30	3.36V
13	5.06V	31	0V
14	0V	32	8.06V
15	3V	33	5.73V
16	3V	34	5.73V
17	8.43V	35	5.74V
18	3.59V	36	3.23V

IC002

Pin	Voltage
1	2.8V
2	2.8V
3	0V
4	4V
5	3.3V
6	2V
7	4.97V
8	4.97V
9	4.97V
10	4.97V
11	4.97V
12	8.11V
13	0V
14	0V
15	0V
16	3.9V
17	3.72V
18	4.59V

IC201~204, 601, 602

Pin	IC201	IC202	IC203	IC204	IC601	❐ IC602	▲ IC602
1	7.55V	6V	6V	1.2V	PS	PS	PS
2	3.84V	6V	6V	14mV	PS	PS	PS
3	3.79V	6V	6V	0V	PS	PS	N.C.
4	3.79V	0V	0V	13.8V	PS	PS	N.C.
5	0V	6V	6V	16mV	0V	5V	0V
6	3.78V	6V	6V	1.2V	5.2V	5V	5V
7	3.78V	6V	6V	12.6V	0V	0V	0V
8	3.74V	13.8V	12.8V	7.2V	PS	PS	PS
9				13.9V	PS	PS	PS
10				7.2V	PS	N.C.	N.C.
11				12.6V	PS	N.C.	N.C.
12				0V	5.6V	0V	0V
13					5.5V	5V	5V
14					5.5V	5.6V	5.6V

IC003

Pin	Voltage	Pin	Voltage
1	2.3V	15	2.45V
2	1.9V	16	2.45V
3	1.26V	17	5.63V
4	0V	18	0V
5	2.47V	19	2.45V
6	1.25V	20	2.45V
7	1.77V	21	1.38V
8	1.83V	22	2.43V
9	0V	23	2.43V
10	2.3V	24	2.46V
11	2V	25	8V
12	2.56V	26	2.45V
13	2.19V	27	2.38V
14	2.17V	28	2.46V

IC603

Pin	Voltage	Pin	Voltage
1	N.C.	29	PS
2	1V	30	PS
3	N.C.	31	PS
4	4.8V	32	PS
5	N.C.	33	PS
6	2V	34	PS
7	5.1V	35	PS
8	4.8V	36	PS
9	FM: 0V MW: 4.75V	37	PS
10	LW ON: 0V LW OFF: 4.75V	38	PS
❐ 11	SDK ON: 4.75V SDK OFF: 0V	39	PS
▲ 11	R. MONI ON: 4.7V R.MONI OFF: 0V	40	PS
❐ 12	4.8V	41	PS
▲ 12	N.C.	42	PS
13	LOUD ON: 0V LOUD OFF: 4.76V	43	PS
14	TAPE: 4.9V RADIO: 0V	44	PS
15	MUTE ON: 0V MUTE OFF: 4.75V	45	PS
16	4.6V	46	PS
17	N.C.	47	PS
18	N.C.	48	PS
19	N.C.	49	PS
20	MONO: 4.8V STEREO: 0V	50	PS
21	LOCAL: 4.7V DX: 0V	51	PS
❐ 22	AME ON: 4.8V AME OFF: 0V	52	PS
▲ 22	N.C.	53	PS
23	N.C.	54	PS
24	2.64V	55	PS
25	2.56V	56	PS
26	0V	57	PS
27	N.C.	58	0V
28	N.C.	59	PS
		60	PS
		61	PS
		62	PS
		63	3.5V
		❐ 64	SK ON: 0V SK OFF: 4.7V
		▲ 64	0V

IC1101

Pin	Voltage
1	12.9V
2	2.97V
3	FOR: 0V REV: 2.48V
4	2.88V
5	2.85V
6	2.85V
7	2.85V
8	0V
9	2.84V
10	N.C.
11	2.85V
12	2.85V
13	2.85V
14	2.88V
15	METAL: 9.3V NORMAL: 0V
16	2.96V

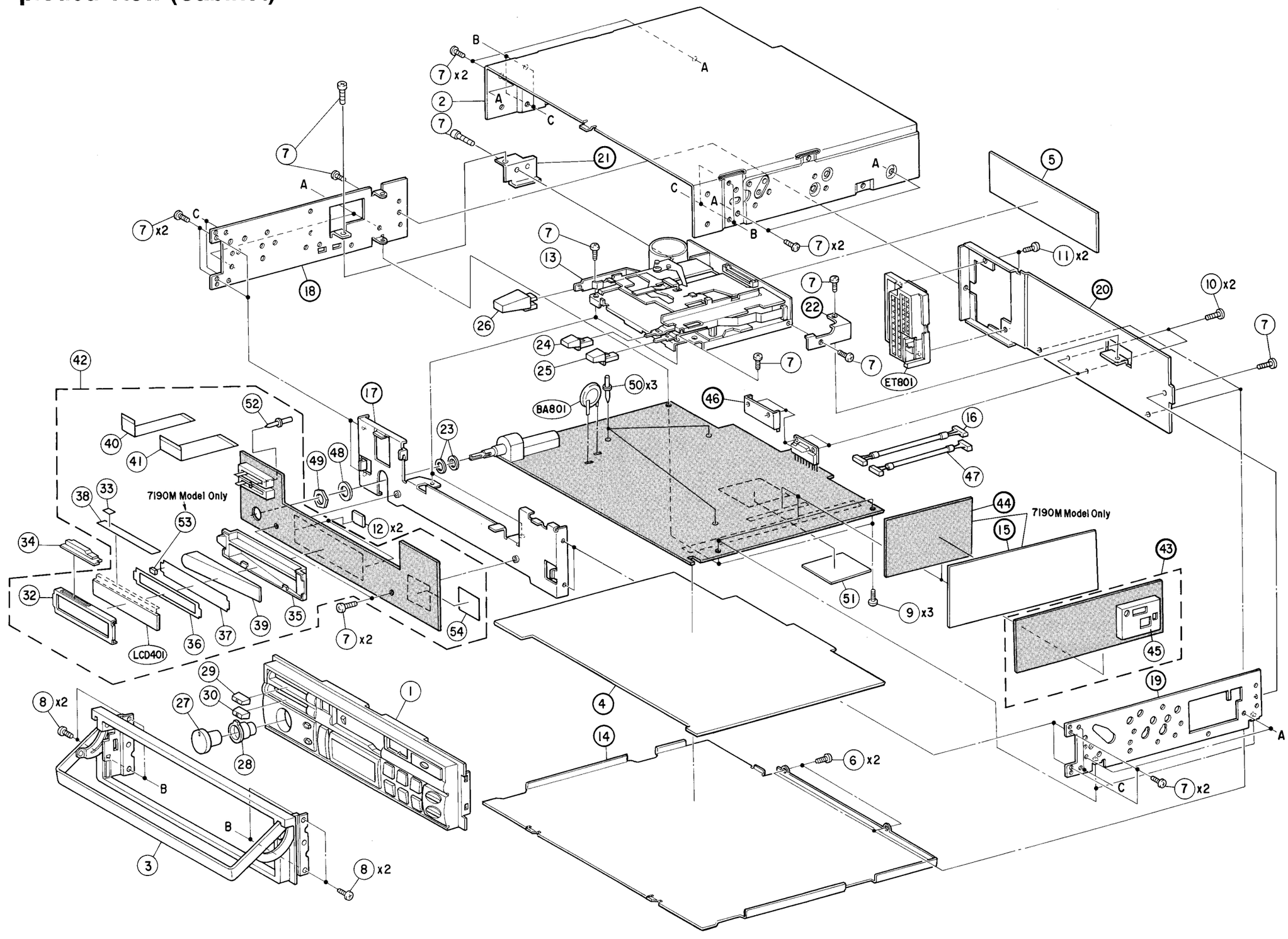
Pin	❐ IC701	❐ IC702
1	0V	6.6V
2	5.8V	1.5V
3	2.7V	4.8V
4	6.6V	7.9V
5	3.9V	4.8V
6	3.9V	0.6V
7	7.9V	6.7V
8	3.9V	0.6V
9	5V	4.8V
10	3.9V	0V
11	5V	0V
12	3.8V	2.5V
13	3.9V	6.1V
14	3.9V	0.6V
15	3.9V	
16	6.6V	
17	3.3V	
18	0V	

Ref. No.	E	C	B
Q001	0V	7.6V	0V
Q002	1.73V	6.68V	2.4V
Q003	0V	0V	0.55V
Q004	0V	DX: 6.5V LOCAL: 0V	DX: 0V LOCAL: 4.65V
Q005	0V	4.6V	0V
Q006	STEREO: 0V MONO: 0V	STEREO: 5V MONO: 0V	STEREO: 0.6V MONO: 5.6V
Q008	4.43V	8.31V	5.03V
Q202	0V	10.2V	LOUD ON: 2V LOUD OFF: 0V
Q203	0V	10.2V	LOUD ON: 0V LOUD OFF: 2V
Q204	0V	0V	MUTE ON: 0.6V MUTE OFF: 0V
Q205	0V	0V	MUTE ON: 0.6V MUTE OFF: 0V
Q206	0V	0V	MUTE ON: 0.6V MUTE OFF: 0V
Q207	0V	0V	MUTE ON: 0.6V MUTE OFF: 0V
Q601	0V	3.74V	0.58V
Q602	0.58V	9.15V	0.96V
Q603	0V	0.3V	MW: 0.3V LW: 4.8V
Q604	0V	0V	MW: 0V FM: 3.7V
❐ Q605	0V	1.2V	0.37V
❐ Q606	0V	1.2V	0.37V
▲ Q607	0V	0V	R.MONI ON: 4.7V R.MONI OFF: 0V
Q608	0V	MUTE ON: 8.9V MUTE OFF: 0V	MUTE ON: 0V MUTE OFF: 4.8V
❐ Q609	0V	AME ON: 2V AME OFF: 0.25V	AME ON: 4.8V AME OFF: 0V
❐ Q610	0V	DK ON: 0V DK OFF: 5.8V	DK ON: 2V DK OFF: 0.25V
Q611	13.6V	0V	13.6V
Q612	13.6V	MUTE ON: 13.5V MUTE OFF: 0V	MUTE ON: 0V MUTE OFF: 13.6V
Q613	0V	MUTE ON: 0V MUTE OFF: 13.6V	MUTE ON: 8V MUTE OFF: 0V
❐ Q614	0V	0V	SDK ON: 0V SDK OFF: 0.7V
❐ Q615	0V	0V	SDK ON: 0V SDK OFF: 0.7V
Q616	0V	0V	GT MUTE ON: 1.83V GT MUTE OFF: 0V
Q617	0V	0V	GT MUTE ON: 1.83V GT MUTE OFF: 0V
Q619	0V	TAPE: 0V RADIO: 14.3V	TAPE: 4.94V RADIO: 0V
Q621	TAPE: 11.5V RADIO: 14.4V	TAPE: 14.3V RADIO: 11.5V	TAPE: 0V RADIO: 14.3V
❐ Q701	0V	4.56V	0.63V
❐ Q702	7.97V	7.95V	0V
❐ Q703	0V	0V	4.74V
❐ Q704	0V	4.73V	2.97V
❐ Q705	0V	0V	4.61V
❐ Q706	7.97V	7.96V	0V
Q803	9.86V	14V	10.5V
Q804	5.54V	13.6V	6.2V
▲ Q809	0V	8.9V	TAPE: 4.9V RADIO: 0V
Q810	0V	FM: 8.5V MW: 0V	FM: 0V MW: 4.8V
Q811	8.5	FM: 1.8V MW: 8.5V	FM: 8.5V MW: 7.8V
Q813	8.56V	14V	9.13V
Q814	8.56V	FM: 8.5V MW: 0V	FM: 7.9V MW: 8.5V
❐ Q815	8V	14V	8.6V
Q1101	0V	FOR: 0V REV: 2.5V	FOR: 4.46V REV: 0V
Q1102	0V	FOR: 0V REV: 4.36V	FOR: 13.9V REV: 0V

NOTE: ❐ : 7190M Model only,
▲ : 7190L Model only,
Others: Common

Measuring Conditions
- Power Supply : DC14.4V
- Measuring Meter : Digital Multi Voltmeter
- Measuring Point Reference : Between Ground
- Measuring Condition : No Signal Input
  MW: 999 kHz
  LW: 218 kHz
  FM: 98.1 MHz
  TAPE: Blank Tape

Exploded View (Cabinet)



14.4V
ital Multi Voltmeter
ween Ground
Signal Input
: 999 kHz
218 kHz
98.1 MHz
E: Blank Tape

Cabinet Assembly Parts List

NOTE : The parts without parts list are not supplied.

Symbol No.		Index	Part No.	Description
□	1	4-C	13D30204W13	Assy., Nosepiece
▲	1	4-C	13D30204W12	Assy., Nosepiece
	2	1-C	15T22325W02	Cover, Top
	3	5-B	07C21606W01	Assy., Bracket Handle
	6	4-E	03S71677F10	Screw, Pan (M2.6×5)
	7		03S44205G07	Screw, Pan (M2.6×5)
	8		03S44205G34	Screw, Pan (M2.6×5)
	9	4-E	03S44205G48	Screw, Pan (M2.6×5)
	10	2-G	03D40014G08	Screw, W/Washer (M2.6×8)
	11	2-F	03S44205G33	Screw, Pan (M2.6×8)
	12	3-C	75S72374F56	Cushion, Rubber
	13	2-D	81D12410W05	Cassette Deck, GT75L020
	16	3-F	01T26022W01	Assy., Connector 3P
	23	3-C	04S40070G76	Washer, Flat (M9.3)
	24	2-D	36T22319W01	Knob, REW
	25	3-D	36T22318W01	Knob, FF
	26	2-C	36T22317W01	Knob, EJECT
	27	4-B	36A94114F01	Knob, Control (Front)
	28	4-B	36A94115F01	Knob, Control (Back)
	29	4-B	36B22527W02	Knob, Slide (B)
	30	4-B	36B22527W01	Knob, Slide (A)
	32	4-A	07B21580W01	Bracket, Shield
	33	3-A	14S20875W58	Insulator, Cover
	34	3-A	14A21597W01	Insulator, Door
	35	4-B	15B21583W01	Case, LCD
	36	4-B	26A21581W01	Reflector, Sheet
	37	4-B	26A21581W02	Reflector, Sheet
	38	3-A	26A83087F14	Reflector, Sheet
	39	4-B	61A21582W01	Lens, LCD
	40	3-A	30T26024W02	Wire, Parallel 8P
	41	3-B	30T26024W01	Wire, Parallel 33P
	42	3-A	01V33100W17	Assy., Front P.C.Board
	45	4-G	77T94804F01	FM Tuner Unit (FE001)
	47	3-F	01T26021W02	Assy., Shield Wire
	48	3-C	04S40070G52	Washer, Flat (M9.2)
	49	3-B	02S40000G15	Nut, HEX. (M9)
	50	3-D	09T84840F01	Lug, Style
	51	4-E	14S20875W93	Insulator, Cover
	52	3-B	09T84840F02	Lug , Style
□	53	3-B	14S81481F82	Insulator, Cover
	54	4-C	14S53017F16	Insulator, Cover

Symbol No.	Index	Part No.	Description

Note : □: For 7190M model only. ▲: For 7190L model only. Others : Common.

Electrical Parts List

Resistor : Carbon resistors under 1/4 watts are not mentioned in the parts list, please confirm them by schematic diagram.

Capacitor : μF = microfarads, pF = picofarads

Abbreviations

RES. =	Resistor	CAP. =	Capacitor
C.F. =	Carbon Film	ELY. =	Electrolytic
M.F. =	Metal Film	CER. =	Ceramic
M.O. =	Metal Oxide Film	MYL. =	Mylar
M.P. =	Metal Plate	TAN. =	Tantalum
TR. =	Transistor	POLY. =	Polystyrol
TRANS. =	Transformer	PP. =	Polypropylene
CP. =	Chip	PLT. =	Polyethylene
		PF. =	Polyester Film

Symbol No.	Part No.	Description
Main P. C. Board		
IC's		
IC201	51T68721F03	BA3114
IC202	51S43471U02	μPC4558C
IC203	51S43471U02	μPC4558C
IC204	51T62339F01	LA4445
IC601	51T47739F01	TC4066BP
IC602	51T47739F01	TC4066BP
IC603	51T25548W02	25548W02
Transistors		
Q202	48T62967F02	CP., DTC114K
Q203	48T62967F02	CP., DTC114K
Q204	48T51878F03	2SC2878
Q205	48T51878F03	2SC2878
Q206	48T51878F03	2SC2878
Q207	48T51878F03	2SC2878
Q601	48T42182U01	2SD661
Q602	48T42182U01	2SD661
Q603	48T62967F03	CP., DTC124K
Q604	48T62967F03	CP., DTC124K
□ Q605	48T62967F08	CP., DTC144W
□ Q606	48T62967F08	CP., DTC144W
▲ Q607	48T62967F03	CP., DTC124K
Q608	48T62967F09	CP., DTC114TK
□ Q609	48T62967F03	CP., DTC124K
□ Q610	48T62967F09	CP., DTC114TK
Q611	48T62966F02	CP., DTA114
Q612	48T62966F03	CP., DTA124
Q613	48T62967F03	CP., DTC124K
□ Q614	48T82763F31	DTC363TL
□ Q615	48T82763F31	DTC363TL
Q616	48T62967F09	CP., DTC114TK
Q617	48T62967F09	CP., DTC114TK
Q619	48T62967F03	CP., DTC124K
Q621	48T62966F03	CP., DTA124
Q803	48T63085F03	2SD1225M
Q804	48T63082F02	2SC2021M
▲ Q809	48T62967F03	CP., DTC124K
□ Q810	48T62967F03	CP., DTC124K
Q811	48T74390F01	2SA874
Q813	48T63085F03	2SD1225M
Q814	48T25993W01	2SB851
□ Q815	48T63084F01	2SD1228M
Diodes / Surge Protector		
D201	48T68828F01	1SS133
D202	48T68828F01	1SS133
D205	48T68829F01	1SS133
D601	48T63462F01	CP., DAN202K
D602	48T68828F01	1SS133
D603	48T63462F01	CP., DAN202K
D604	48T68828F01	1SS133
D605	48T68828F01	1SS133
D606	48T63462F01	CP., DAN202K
D607	48T63462F01	CP., DAN202K
▲ D608	48T68828F01	1SS133
▲ D609	48T68828F01	1SS133
D610	48T68828F01	1SS133
D611	48T68828F01	1SS133
D612	48T68828F01	1SS133
D613	48T68828F01	1SS133
D614	48T68828F01	1SS133
D615	48T68828F01	1SS133
□ D616	48T68828F01	1SS133
D617	48T68828F01	1SS133
D618	48T68828F01	1SS133
D619	48T68828F01	1SS133
D620	48T68828F01	1SS133
D621	48T68828F01	1SS133
D622	48T68828F01	1SS133
D623	48T68828F01	1SS133
D624	48T68828F01	1SS133
□ D625	48T68828F01	1SS133
D630	48T68828F01	1SS133
D631	48T68828F01	1SS133
□ D632	48T68828F01	1SS133
□ D635	48T68828F01	1SS133
□ D640	48T63462F01	CP., DAN202K
□ D641	48T63462F01	CP., DAN202K
D801	48C40235G02	10E2

Note : □: For 7190M model only. ▲: For 7190L model only. Others : Common.

Symbol No.	Part No.	Description
D803	48S40477U01	1N4003
D804	48S40477U01	1N4003
D805	48T68828F01	1SS133
D806	48T68828F01	1SS133
ZD201	48T26033W35	Zener, MTZJ7.5A
ZD202	48T26033W30	Zener, MTZJ6.2B
ZD601	48T26033W43	Zener, MTZJ9.1C
ZD602	48T26033W26	Zener, MTZJ5.6A
ZD603	48T26033W16	Zener, MTZJ3.9B
ZD604	48T26033W23	Zener, MTZJ5.1A
ZD606	48T91071F11	Zener, HZS5BLL
ZD801	48T26033W47	Zener, MTZJ11A
ZD802	48T83128F08	Zener, HZS 6C2L
ZD803	48T91071F09	Zener, HZS4CLL
ZD804	48T91071F11	Zener, HZS5BLL
ZD805	48T26033W43	Zener, MTZJ9.1C
□ ZD806	48T26033W42	Zener, MTZJ9.1B
DSP601	48T81909F01	Surge Protector, DSP-201M
Crystal / Filter		
X601	91T00024K01	Crystal 4.5MHz
▲ BPF601	91T16380W01	B.P.F 108-28K
Coils		
T801	25T00102K01	Choke
L801	24T58149F02	Inductor, 1.2mH
Capacitors		
E201	23S43247F08	ELY., 4.7μF / 25V
E202	23S43247F08	ELY., 4.7μF / 25V
E203	23S43247F09	ELY., 10μF / 16V
C204	08S65128F19	CP., 22pF
E205	23S43247F10	ELY., 22μF / 16V
E206	23S43247F10	ELY., 22μF / 16V
E207	23S43247F08	ELY., 4.7μF / 25V
C208	08S65128F19	CP., 22pF
E208	23S43247F08	ELY., 4.7μF / 25V
C209	08S65128F57	CP., 1000pF
C210	08S65128F57	CP., 1000pF
E210	23S61523F15	ELY., 47μF / 16V
E211	23S61523F12	ELY., 10μF / 16V
E212	23S61523F10	ELY., 33μF / 10V
C213	08T50579F15	TF, 0.15μF
E213	23S61523F29	ELY., 1μF / 50V
C214	08T50579F15	TF, 0.15μF

Symbol No.	Part No.	Description
▲ E214	23S61523F25	ELY., 0.1μF / 50V
E215	23S61523F29	ELY., 1μF / 50V
▲ E216	23S57422F01	ELY., 0.1μF / 50V
C217	08S65128F76	CP., 0.1μF
E217	23S43247F09	ELY., 10μF / 16V
□ C218	08T42629F73	MYL., 0.033μF
E218	23S43247F06	ELY., 2.2μF / 50V
□ C219	08T42629F73	MYL., 0.033μF
E219	23S43247F22	ELY., 100μF / 16V
E220	23S43247F09	ELY., 10μF / 16V
E221	23S57422F11	ELY., 22μF / 16V
E222	23S43247F06	ELY., 2.2μF / 50V
E223	23S57422F11	ELY., 22μF / 16V
E224	23S57422F09	ELY., 10μF / 16V
E225	23S43247F08	ELY., 4.7μF / 25V
E226	23S43247F08	ELY., 4.7μF / 25V
E227	23T73862F01	ELY., 100μF / 10V
E228	23T73862F01	ELY., 100μF / 10V
E229	23C42170G24	ELY., 1000μF / 10V
E230	23C42170G24	ELY., 1000μF / 10V
E231	23S43247F18	ELY., 330μF / 6.3V
E232	23S43247F18	ELY., 330μF / 6.3V
E233	23T16360W40	ELY., 2200μF / 16V
E234	23T73862F02	ELY., 220μF / 10V
E601	23T68328F03	ELY., 100μF / 10V
C602	08S65128F69	CP., 0.01μF
E602	23S43247F08	ELY., 4.7μF / 25V
C603	08S65128F69	CP., 0.01μF
C604	08S65128F69	CP., 0.01μF
E604	23S61523F34	ELY., 100μF / 10V
C605	08S65128F19	CP., 22pF
C606	08S65128F19	CP., 22pF
E606	23S61523F27	ELY., 0.33μF / 50V
C607	23T41366F42	ELY., (B.P.) 3.3μF / 50V
C608	23T82372F19	ELY., (B.P.) 2.2μF / 50V
□ E609	23S43247F09	ELY., 10μF / 16V
C610	08S65128F57	CP., 1000pF
E610	23S43247F09	ELY., 10μF / 16V
E611	23S43247F09	ELY., 10μF / 16V
E612	23S43247F08	ELY., 4.7μF / 25V
E613	23S43247F08	ELY., 4.7μF / 25V
E614	23S43247F09	ELY., 10μF / 16V
□ C615	08T74293F49	CER., 1000pF
E615	23S43247F09	ELY., 10μF / 16V
E616	23S43247F07	ELY., 3.3μF / 25V
E617	23S43247F05	ELY., 1μF / 50V
C620	08T74293F49	CER., 1000pF
□ C621	08T74293F49	CER., 1000pF
□ C625	08T74293F49	CER., 1000pF
□ E625	23T68328F02	ELY., 47μF / 10V

Note : □: For 7190M model only. ▲: For 7190L model only. Others : Common.

Symbol No.	Part No.	Description
	E626	23S43247F10	ELY., 22μF/16V
	E630	23T73861F05	ELY., 47μF/16V
	C640	08T15399W01	CP., 0.022μF
▲	C695	08T74293F49	CER., 1000pF
	E801	23C42170G30	ELY., 470μF/16V
	C802	08S53332F51	CP., 0.022μF
	C803	08T15399W01	CP., 0.022μF
	E803	23S43247F05	ELY., 1μF/50V
	E804	23S43247F19	ELY., 220μF/6.3V
	E806	23S61523F34	ELY., 100μF/10V
□	E807	23T68328F02	ELY., 47μF/10V
	Resistors (All resistors are chip 1/10W ± 5% unless otherwise noted.)		
	R210	06S64996F26	1M ohm
	R215	06S64996F26	1M ohm
	R216	06S53330F29	100 ohm 1/8W
	R218	06S64995F77	10K ohm
	R219	06S64995F71	5.6K ohm
□	R222	06S53330F71	5.6K ohm 1/8W
▲	R222	06S53330F61	2.2K ohm 1/8W
□	R223	06S53330F71	5.6K ohm 1/8W
▲	R223	06S53330F61	2.2K ohm 1/8W
	R224	06S53330F61	2.2K ohm 1/8W
	R225	06S53330F61	2.2K ohm 1/8W
	R226	06S64995F53	1K ohm
	R227	06S64996F10	220K ohm
	R228	06S53331F02	100K ohm 1/8W
	R229	06S64995F33	150 ohm
	R230	06S53330F75	8.2K ohm 1/8W
	R231	06S64995F85	22K ohm
	R232	06S64996F10	220K ohm
	R233	06S64995F37	220 ohm
	R234	06S64995F85	22K ohm
	R235	06S53330F29	100 ohm 1/8W
	R236	06S64995F77	10K ohm
□	R237	06S64995F61	2.2K ohm
▲	R237	06S64995F57	1.5K ohm
	R238	06S64995F53	1K ohm
□	R239	06S64995F61	2.2K ohm
▲	R239	06S64995F57	1.5K ohm
	R240	06S64995F85	22K ohm
	R241	06S64995F37	220 ohm
	R242	06S64995F85	22K ohm
	R243	06S64995F29	100 ohm
	R244	06S53330F77	10K ohm 1/8W
	R248	06S53331F40	2.2 ohm 1/8W
	R249	06S53331F40	2.2 ohm 1/8W
	R258	06S64995F37	220 ohm
	R259	06S64995F37	220 ohm
□	R262	06S53330F31	120 ohm 1/8W

Symbol No.	Part No.	Description
▲	R262	06S53330F27	82 ohm 1/8W
□	R263	06S53330F31	120 ohm 1/8W
▲	R263	06S53330F27	82 ohm 1/8W
	R601	06S64995F93	47K ohm
	R603	06S64995F05	10 ohm
	R604	06S64995F53	1K ohm
	R605	06S64995F53	1K ohm
□	R610	06S64996F10	220K ohm
□	R611	06S64996F10	220K ohm
	R612	06S53330F77	10K ohm 1/8W
	R613	06S53330F77	10K ohm 1/8W
	R614	06S53330F61	2.2K ohm 1/8W
	R615	06S64995F65	3.3K ohm
	R616	06S64995F65	3.3K ohm
	R617	06S53330F53	1K ohm 1/8W
	R618	06S64995F05	10 ohm
	R619	06S53330F57	1.5K ohm 1/8W
	R620	06S53330F71	5.6K ohm 1/8W
	R621	06S53330F41	330 ohm 1/8W
	R623	06S53330F77	10K ohm 1/8W
□	R624	06S64995F85	22K ohm
□	R625	06S64995F53	1K ohm
	R627	06S53331F02	100K ohm 1/8W
	R628	06S53331F02	100K ohm 1/8W
	R629	06S53330F89	33K ohm 1/8W
	R630	06S53330F89	33K ohm 1/8W
□	R634	06S64995F67	3.9K ohm
	R638	06S53330F69	4.7K ohm 1/8W
	R639	06S64995F93	47K ohm
	R640	06S64995F77	10K ohm
	R641	06S64995F77	10K ohm
	R643	06S53330F85	22K ohm 1/8W
	R644	06S64996F01	91K ohm
	R645	06S64996F02	100K ohm
	R647	06S64995F85	22K ohm
	R648	06S64996F04	120K ohm
	R650	06S53330F98	75K ohm 1/8W
	R651	06S53331F02	100K ohm 1/8W
	R652	06S64995F98	75K ohm
	R653	06S64996F02	100K ohm
	R656	06S64995F99	82K ohm
	R670	06S53330F97	68K ohm 1/8W
	R671	06S53330F97	68K ohm 1/8W
	R801	06S53330F65	3.3K ohm 1/8W
	R802	06S53330F77	10K ohm 1/8W
	R806	06S53330F53	1K ohm 1/8W
	R808	06S53330F77	10K ohm 1/8W
	R809	06T51015F15	C.F., 39 ohm 1/2W
	R810	06S64995F77	10K ohm
	R821	06S53330F53	1K ohm 1/8W
	R822	06S53330F65	3.3K ohm 1/8W
	R823	06S64995F65	3.3K ohm

Note : □: For 7190M model only. ▲: For 7190L model only. Others : Common.

Symbol No.	Part No.	Description
R824	06S53330F65	3.3K ohm 1/8W
R825	06S53330F53	1K ohm 1/8W
□ R826	06S53330F53	1K ohm 1/8W
□ VR203	18T16194W11	Volume, Control 100K ohm
□ S801		(VOLUME / BALANCE / FADER / POWER SW)
▲ VR203	18T16194W06	Volume, Control 20K ohm
▲ S801		(VOLUME / BALANCE / FADER / POWER SW)

□ SDK P. C. Board (For 7190M model only)

IC's

IC701	51T82523F01	TDA1579
IC702	51T83062F01	LM2902N

Coil

L701	24T84175F02	SDK (57kHz)

Transistors

Q701	48T63417F01	CP., 2SC2412K
Q702	48T62966F02	CP., DTA114
Q703	48T62967F09	CP., DTC114TK
Q704	48T62967F09	CP., DTC114TK
Q705	48T62967F03	CP., DTC124K
Q706	48T62966F03	CP., DTA124

Diodes

D701	48T68828F01	1SS133
D702	48T68828F01	1SS133
D703	48T68828F01	1SS133
D704	48T68828F01	1SS133
D705	48T68828F01	1SS133
D706	48T68828F01	1SS133
D707	48T68828F01	1SS133
D708	48T68828F01	1SS133

Capacitors

C701	08T50579F13	TF,	0.1μF
C702	08T50579F13	TF,	0.1μF
E702	23S61523F25	ELY.,	0.1μF / 50V
C703	08T50579F11	TF,	0.068μF
E703	23S61523F11	ELY.,	47μF / 10V
C704	08T50579F11	TF,	0.068μF
E704	23S61523F12	ELY.,	10μF / 16V
C705	08T50579F11	TF,	0.068μF
E705	23S61523F09	ELY.,	22μF / 10V
C706	08S65480F31	CER.,	56pF
C707	08T50579F13	TF,	0.1μF
C708	08T50579F09	TF,	0.047μF
E708	23S57422F08	ELY,	4.7μF / 25V
C709	08T50579F09	TF,	0.047μF
C710	08T50579F07	TF,	0.033μF
C711	08T15399W02	CP.,	0.033μF
C712	08T15399W03	CP.,	0.047μF
C713	08T15399W02	CP.,	0.033μF
C714	08T15399W01	CP.,	0.022μF

Resistors (All resistors are chip 1/10W ± 5% unless otherwise noted.)

R701	06S64995F93	47K ohm	
R702	06S64995F45	470 ohm	
R703	06S64995F97	68K ohm	
R704	06S64995F69	4.7K ohm	
R705	06S64996F02	100K ohm	
R706	06S64996F22	680K ohm	
R707	06S64996F10	220K ohm	
R712	06S64995F77	10K ohm	
R713	06S64995F97	68K ohm	
R714	06S64995F91	39K ohm	
R715	06S64996F10	220K ohm	
R716	06S64996F04	120K ohm	
R717	06S64996F22	680K ohm	
R718	06S64995F77	10K ohm	
R719	06S64995F97	68K ohm	
R720	06S64995F41	330 ohm	
R721	06S64995F73	6.8K ohm	
R722	06S64996F18	470K ohm	
R723	06S64996F02	100K ohm	
R724	06S64995F91	39K ohm	
R725	06S64996F02	100K ohm	
R726	06S64996F04	120K ohm	
R727	06S64995F89	33K ohm	
R728	06S64995F65	3.3K ohm	
R729	06S64995F65	3.3K ohm	
R730	06S64995F89	33K ohm	
R732	06S64995F71	5.6K ohm	
R733	06S53330F83	18K ohm	1/8W
R736	06S64995F89	33K ohm	
R737	06S64996F03	110K ohm	
R738	06S64996F04	120K ohm	
R739	06S64996F02	100K ohm	

Note : □ : For 7190M model only. ▲ : For 7190L model only. Others : Common.

Symbol No.	Part No.	Description
R740	06S64995F92	43K ohm
R745	06S64995F61	2.2K ohm
VR701	18T74439F02	Variable, 150 ohm

Tuner P. C. Board

IC's

IC001	51T25585W02	μPC2530GS
IC002	51T94495F01	LA1145B
IC003	51T94316F01	AN7465S

Transistors

Q001	48T15894W02	FET, CP. 2SK1001
Q002	48T63417F01	CP., 2SC2412K
Q003	48T63417F01	CP., 2SC2412K
Q004	48T62967F09	CP., DTC114TK
Q005	48T62967F03	CP., DTC124K
Q006	48T62967F03	CP., DTC124K
Q008	48T62967F09	CP., DTC114TK

Diodes

D001	48T68828F01	1SS133
D002	48T68828F01	1SS133
D003	48T68828F01	1SS133
D004	48T64134F01	CP., DA204K
D007	48T51087F01	Varister, KB-265C4
VD001	48T83306F02	Varicap, CP. SVC-212

Coils

L001	24T70381F17	Inductor, 4.7μH
L002	24T51656F34	Inductor, 100μH
L003	24T51656F24	Inductor, 15μH
L005	24T51656F46	Inductor, 1mH
T001	24T94308F01	Inductor, 100mH
T003	24T94496F02	IFT-1 (BRN)
T004	24T94496F03	IFT-2 (YEL)
T005	24T94496F04	IFT-3 (BLK)
T006	24T58377F01	FM Inductor (WHT)
T007	24T58377F02	FM 7K (BLU)
T008	24T94496F01	OSC (RED)

Symbol No.	Part No.	Description

Crystal / Thermistor

X001	91T00056K01	Crystal, 10.26MHz
TH001	48T82780F02	100K ohm

Filters

CF001	91T80084F01	CER., 10.7MHz
CF002	91T80084F01	CER., 10.7MHz
CF003	91T94396F01	CER., 10.71MHz
CF004	91T25464W01	CER., 450KHz
or	91T73118F02	CER., 450KHz

Capacitors

C001	08S65128F69	CP.,	0.01μF
E001	23S61523F11	ELY.,	47μF/10V
C002	08S65128F69	CP.,	0.01μF
E002	23S61523F30	ELY.,	2.2μF/50V
C003	08T15399W03	CP.,	0.047μF
E003	23S57422F09	ELY.,	10μF/16V
C004	08T44979P08	CER.,	0.01μF
E004	23S61523F12	ELY.,	10μF/16V
C005	08S65128F31	CP.,	68pF
E005	23S61523F34	ELY.,	100μF/10V
C006	08T15399W01	CP.,	0.022μF
C007	08S65128F35	CP.,	100pF
E007	23S61523F30	ELY.,	2.2μF/50V
C008	08T15399W01	CP.,	0.022μF
E008	23S61523F29	ELY.,	1μF/50V
C009	08T15399W01	CP.,	0.022μF
E009	23S57422F09	ELY.,	10μF/16V
C010	08S65128F66	CP.,	5600pF
E010	23S57422F19	ELY.,	100μF/10V
C011	08T15399W01	CP.,	0.022μF
E011	23S61523F28	ELY.,	0.47μF/50V
C012	08S65128F27	CP.,	47pF
E012	23S61523F25	ELY.,	0.1μF/50V
C013	08S65128F47	CP.,	330pF
E013	23S61523F27	ELY.,	0.33μF/50V
E014	23S61523F11	ELY.,	47μF/10V
C015	08S65128F69	CP.,	0.01μF
E015	23S57422F08	ELY.,	4.7μF/25V
C016	08S60102F20	CP.,	0.01μF
E016	23S57422F01	ELY.,	0.1μF/50V
C017	08T15399W01	CP.,	0.022μF
E017	23S61523F17	ELY.,	4.7μF/25V
C018	08S60102F28	CP.,	0.047μF
E018	23S61523F26	ELY.,	0.22μF/50V
C019	08S65128F27	CP.,	47pF

Symbol No.	Part No.	Description
E019	23S57422F01	ELY., 0.1μF/50V
C020	08S82122F17	CP., 15pF
E020	23S61523F29	ELY., 1μF/50V
C021	08T15399W03	CP., 0.047μF
C022	08T15399W03	CP., 0.047μF
C023	08S65128F69	CP., 0.01μF
C024	08T15399W03	CP., 0.047μF
C025	08T15399W01	CP., 0.022μF
E025	23S61523F28	ELY., 0.47μF/50V
C026	08S65128F37	CP., 120pF
C027	08T15399W03	CP., 0.047μF
C028	08S65128F69	CP., 0.01μF
C029	08S65128F57	CP., 1000pF
C030	08T15399W01	CP., 0.022μF
C031	08T15399W03	CP., 0.047μF
C032	08T15399W03	CP., 0.047μF
C033	08S65128F76	CP., 0.1μF
C034	08S65128F63	CP., 3300pF
C035	08S65128F69	CP., 0.01μF
C036	08S65128F69	CP., 0.01μF
C038	08S65128F67	CP., 6800pF
C039	08T44481F03	PP., 390pF
C040	08S65128F45	CP., 270pF
C041	08S65128F71	CP., 0.015μF
C042	08T42629F71	MYL., 0.022μF
C043	08T42629F71	MYL., 0.022μF
□ C044	08T50579F12	TF, 0.082μF
▲ C044	08T42629F76	MYL., 0.056μF

Resistors (All resistors are chip 1/10W ± 5% unless otherwise noted.)

Symbol No.	Part No.	Description
R001	06S64995F53	1K ohm
R002	06S64995F89	33K ohm
R004	06S64995F05	10 ohm
R005	06S64995F49	680 ohm
R006	06S64995F13	22 ohm
R007	06S64996F02	100K ohm
R008	06S64995F21	47 ohm
R009	06S64995F89	33K ohm
R010	06S64995F65	3.3K ohm
R011	06S64995F21	47 ohm
R012	06S64995F61	2.2K ohm
R013	06S64995F87	27K ohm
□ R014	06S64995F62	2.4K ohm
▲ R014	06S64995F61	2.2K ohm
R015	06S64995F61	2.2K ohm
□ R016	06S53330F69	4.7K ohm 1/8W
▲ R016	06S53330F77	10K ohm 1/8W
R017	06S64995F41	330 ohm
R018	06S64995F89	33K ohm
R020	06S64995F85	22K ohm

Symbol No.	Part No.	Description
R021	06S64995F93	47K ohm
R022	06S64995F79	12K ohm
R023	06S64995F89	33K ohm
R024	06S64995F77	10K ohm
R025	06S64995F75	8.2K ohm
R026	06S64995F05	10 ohm
R027	06S64995F93	47K ohm
R028	06S64995F53	1K ohm
R029	06S64995F97	68K ohm
R030	06S64995F57	1.5K ohm
R031	06S64996F26	1M ohm
R033	06S64995F69	4.7K ohm
R034	06S64996F18	470K ohm
R035	06S64995F13	22 ohm
R037	06S64995F77	10K ohm
R038	06S64995F77	10K ohm
R039	06S64995F79	12K ohm
R040	06S64995F65	3.3K ohm
R041	06S64995F77	10K ohm
R042	06S64996F06	150K ohm
R044	06S64995F93	47K ohm
□ R045	06S64995F81	15K ohm
▲ R045	06S64995F95	56K ohm
□ R046	06S64995F81	15K ohm
▲ R046	06S64995F95	56K ohm
R047	06S64996F02	100K ohm
R048	06S53330F93	47K ohm 1/8W
R051	06S64995F71	5.6K ohm
R060	06S64996F18	470K ohm
R061	06S53330F87	27K ohm 1/8W
R089	06S64995F85	22K ohm
R090	06S64995F53	1K ohm
R091	06S64995F83	18K ohm
R099	06S64995F65	3.3K ohm
VR001	18T74439F16	Variable, 33K ohm
VR002	18T45040F11	Metal, 4.7K ohm
VR003	18T74439F09	Variable, 2.2 ohm
VR004	18T74439F13	Variable, 10K ohm

Front P. C. Board

LED's

Symbol No.	Part No.	Description
LD401	48T51833F03	BG4524K (GRN)
LD402	48T51833F03	BG4524K (GRN)

Note : □: For 7190M model only. ▲: For 7190L model only. Others : Common.

Symbol No.	Part No.	Description
Switches		
□ S401	40T70366F02	SKHLAC (SDK/LOUD)
▲ S401	40T70366F02	SKHLAC (R.MONI/LOUD)
S402	40T70366F02	SKHLAC (MONO)
S403	40T70366F02	SKHLAC (DX)
S404	40T70366F02	SKHLAC (TUNER/P.SCAN)
S405	40T70366F02	SKHLAC (M1)
S406	40T70366F02	SKHLAC (M4)
S407	40T70366F02	SKHLAC (M5)
S408	40T70366F02	SKHLAC (M2)
S409	40T70366F02	SKHLAC (M3)
S410	40T70366F02	SKHLAC (M6)
S411	40T70366F02	SKHLAC (PLAY/PAUSE)
S412	40T70366F02	SKHLAC (BAND)
S413	40T70366F02	SKHLAC (DN)
S414	40T70366F02	SKHLAC (UP)
Lamps		
PL401	65T25170W06	6V-70mA
PL402	65T25170W06	6V-70mA
PL403	65T25170W06	6V-70mA
PL404	65T25230W01	6.7V-85mA
Capacitors		
C201	08T50579F04	TF, 0.018μF
C202	08S65128F56	CP., 820pF
C203	08S53332F39	CP., 2200pF
C205	08T50579F04	TF, 0.018μF
C206	08S53332F34	CP., 820pF
C207	08S53332F39	CP., 2200pF
Resistors (All resistors are chip 1/10W ± 5% unless otherwise noted.)		
R206	06S64995F85	22K ohm
R207	06S64995F85	22K ohm
R208	06S53330F67	3.9K ohm 1/8W
R209	06S64995F67	3.9K ohm
R211	06S64995F85	22K ohm
R212	06S64995F85	22K ohm
R213	06S64995F67	3.9K ohm
R214	06S53330F67	3.9K ohm 1/8W
R402	06T51015F69	C.F., 130 ohm 1/2W

Symbol No.	Part No.	Description
VR201	18T15284W01	Volume, Slide 100K ohm (BASS)
VR202	18T15284W01	Volume, Slide 100K ohm (TREBLE)
GT Control P. C. Board		
IC		
IC1101	51T64606F01	TA7705F
Transistors		
Q1101	48T62967F03	CP., DTC124K
Q1102	48T62967F03	CP., DTC124K
Diodes		
D1101	48T44813F01	MA165TA
D1104	48C40235G02	10E2
Capacitors		
C1101	08S53332F33	CP., 680pF
C1102	08S53332F33	CP., 680pF
C1103	08S53332F33	CP., 680pF
C1104	08S53332F33	CP., 680pF
C1105	23S61524F07	ELY., 47μF/6.3V
C1106	23S61524F07	ELY., 47μF/6.3V
C1107	23S61524F13	ELY., 10μF/16V
C1108	08S53332F48	CP., 0.012pF
C1109	08S53332F48	CP., 0.012pF
C1110	23S61523F17	ELY., 4.7μF/25V
C1111	23S82482F02	ELY., 100μF/16V
C1112	23S61523F12	ELY., 10μF/16V
C1115	08S53332F41	CP., 3300pF
C1116	08S53332F41	CP., 3300pF
Resistors (All resistors are chip 1/8W ± 5% unless otherwise noted.)		
R1101	06S53330F32	130 ohm
R1102	06S53330F32	130 ohm
R1103	06S53331F14	330K ohm
R1104	06S53331F14	330K ohm
R1105	06S53330F81	15K ohm
R1106	06S53330F81	15K ohm
R1107	06S53330F79	12K ohm

Note : □: For 7190M model only. ▲: For 7190L model only. Others : Common.

Symbol No.	Part No.	Description
R1108	06S53330F79	12K ohm
R1110	06S53330F94	51K ohm
R1111	06S53331F02	100K ohm
R1112	06S53330F89	33K ohm
R1113	06S53331F01	91K ohm
R1114	06S53330F85	22K ohm
R1115	06S53330F29	100 ohm
R1123	06S53330F85	22K ohm
R1124	06S53330F53	1K ohm
R1128	06S53330F85	22K ohm
R1129	06S53330F89	33K ohm
R1130	06S53330F89	33K ohm
R1131	06S53330F89	33K ohm
R1132	06S53330F89	33K ohm

Miscellaneous

BA801	60T25650W02	Battery, Lit CR2032-1VC1
or	60T91060F03	Battery, Lit CR2032-V03
LCD401	65T25814W01	LCD Display, LTP6N5021A
ET801	01T25817W05	Assy., QRB Connector (Socket)
HD1101	88T15795W01	Head, Playback
M1101	01V14500W41	Assy., Motor
S1101	40T52216F01	Switch, Micro (PACK-IN)
S1102	40T15222W01	Switch, Detector (F/R)
S1103	40T71025F03	Switch, Detector (METAL)
S1104	40T15222W01	Switch, Detector (MUTE)
SD1101	01T80451F01	Assy., Keep Solenoid (PLAY)

Symbol No.	Part No.	Description

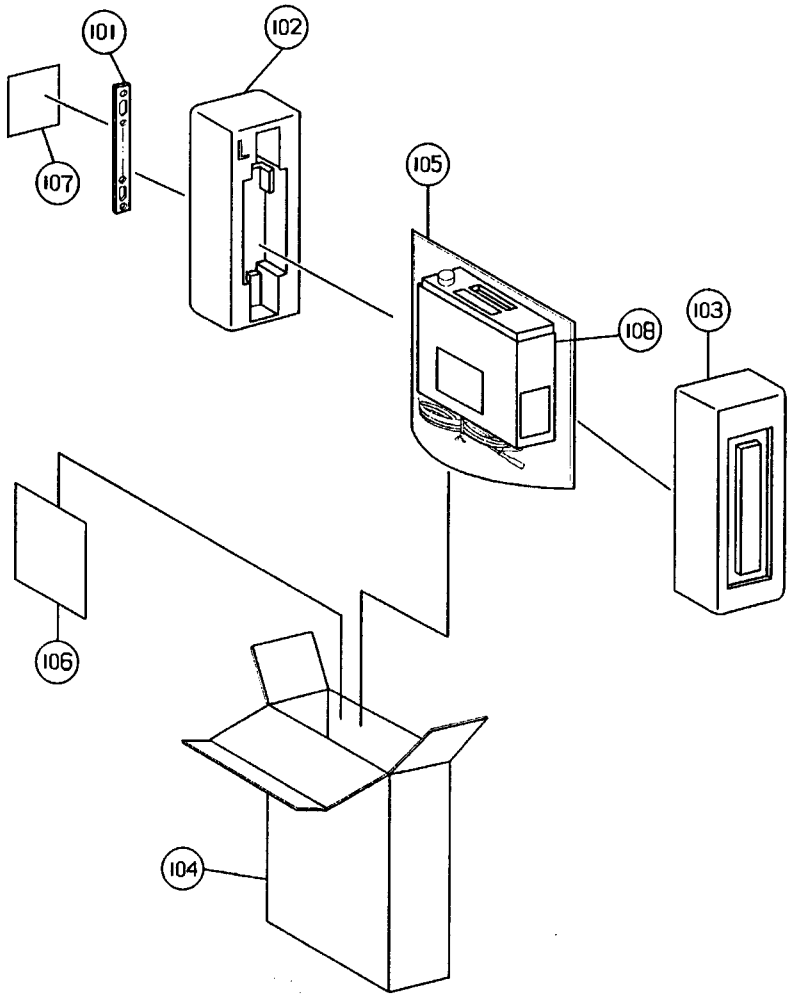
Packing Assembly Parts List

Symbol No.	Part No.	Description
101	07B64552F01	Bracket, Strap Receiver
102	56D21594W02	Tray, Packing (R)
103	56D21594W01	Tray, Packing (L)
□ 104	56S22119W82	Carton, Packing (Individual)
▲ 104	56S22199W79	Carton, Packing (Individual)
105	56C40990T36	Sack, Polyethylene
□ 106-1	68P21910W95	Owner's Manual
▲ 106-1	68P21910W90	Owner's Manual
□ 106-2	68P21910W96	Installation, Manual
▲ 106-2	68P21910W91	Installation, Manual
106-3	68P21910W71	Nois, Manual
107	01V24800W20	Assy., Kit Installation
107-1	02B47353F01	Nut, Hex. (M5)
107-2	03S40012G66	Screw, Tapping (M5X20)

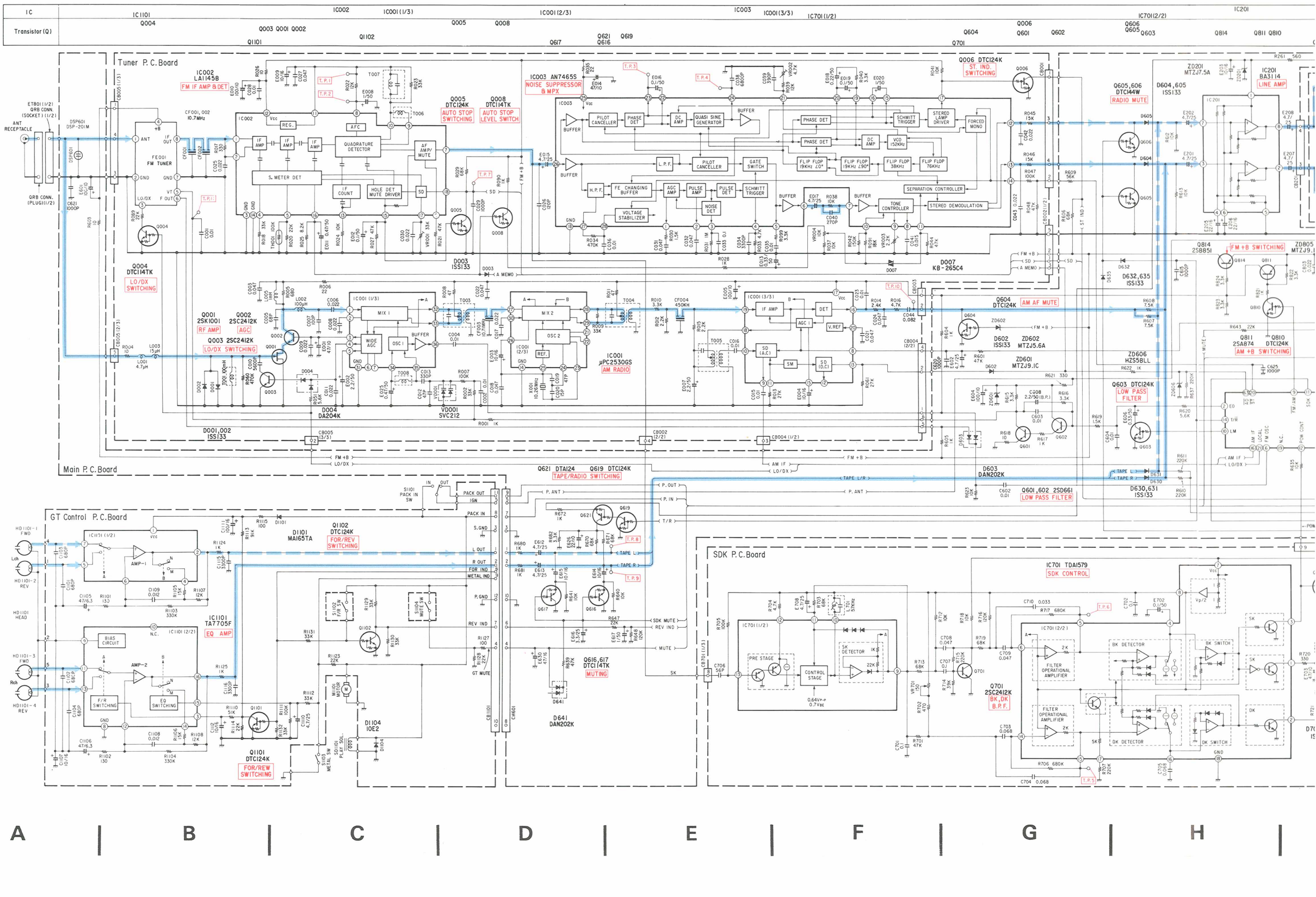
Symbol No.	Part No.	Description
107-3	03B44963F03	Bolt, Hex. W/Washer (M5X10)
107-4	03A40155F05	Bolt, Hex. (M5X14)
107-5	03A40155F01	Bolt, Hex. (M5X8)
107-6	45A41684U01	Arm, Adapter
107-7	03S44205G34	Screw, Pan (2.6X5)
107-8	07A30081W01	Bracket, QRB (A)
107-9	07A30082W01	Bracket, QRB (B)
108	01V31800W49	Assy., Case Mother
108-1	15D21598W01	Case, Mother
108-2	03A28015W01	Screw, Special (M2.6×6.7)
108-3	01T25816W05	Assy., QRB Connector (Plug)

Note : □: For 7190M model only. ▲: For 7190L model only. Others : Common.

Packing Method View

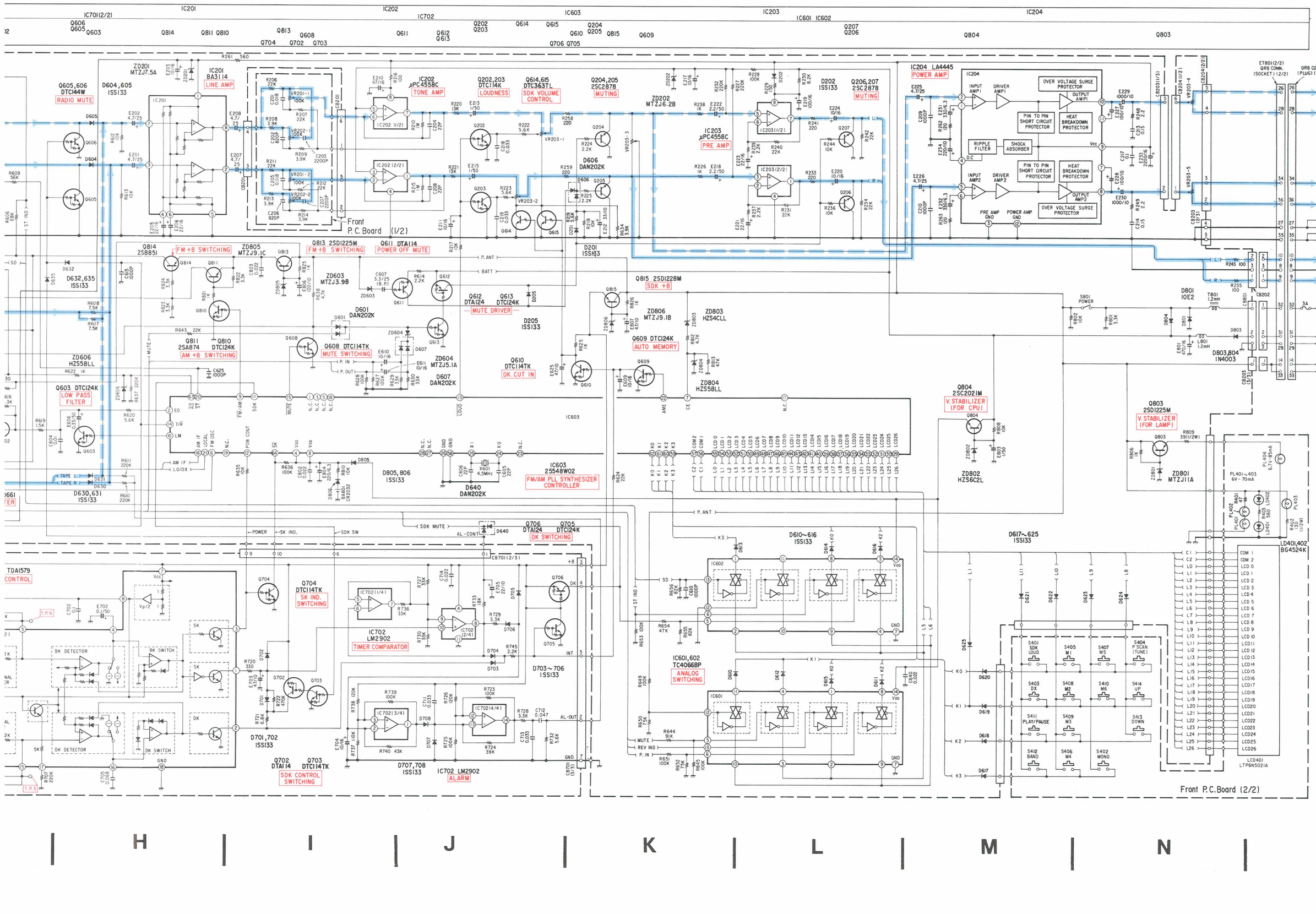


Schematic Diagram (7190M Model) (Refer to reverse side for IC's and Transistors voltage values.)



A B C D E F G H

NOTE:
1. All resistance values are in ohms. K= 1,000 M= 1,000,000
2. All capacitance values are in microfarads. P= 1/1,000,000



IC's and Transistors Voltage Values

IC001

Pin	Voltage	Pin	Voltage
1	3.2V	19	3.59V
2	3.2V	20	3.7V
3	2.4V	21	4.59V
4	1.26V	22	4.85V
5	1.26V	23	4.89V
6	1.87V	24	4.3V
7	1.87V	25	5.86V
8	1.87V	26	5.95V
9	0V	27	3.36V
10	5.78V	28	3.36V
11	5.16V	29	8.4V
12	0V	30	3.36V
13	5.06V	31	0V
14	0V	32	8.06V
15	3V	33	5.73V
16	3V	34	5.73V
17	8.43V	35	5.74V
18	3.59V	36	3.23V

IC002

Pin	Voltage
1	2.8V
2	2.8V
3	0V
4	4V
5	3.3V
6	2V
7	4.97V
8	4.97V
9	4.97V
10	4.97V
11	4.97V
12	8.11V
13	0V
14	0V
15	0V
16	3.9V
17	3.72V
18	4.59V

IC201~204, 601, 602

Pin	IC201	IC202	IC203	IC204	IC601	❐ IC602	▲ IC602
1	7.55V	6V	6V	1.2V	PS	PS	PS
2	3.84V	6V	6V	14mV	PS	PS	PS
3	3.79V	6V	6V	0V	PS	PS	N.C.
4	3.79V	0V	0V	13.8V	PS	PS	N.C.
5	0V	6V	6V	16mV	0V	5V	0V
6	3.78V	6V	6V	1.2V	5.2V	5V	5V
7	3.78V	6V	6V	12.6V	0V	0V	0V
8	3.74V	13.8V	12.8V	7.2V	PS	PS	PS
9				13.9V	PS	PS	PS
10				7.2V	PS	N.C.	N.C.
11				12.6V	PS	N.C.	N.C.
12				0V	5.6V	0V	0V
13					5.5V	5V	5V
14					5.5V	5.6V	5.6V

IC003

Pin	Voltage	Pin	Voltage
1	2.3V	15	2.45V
2	1.9V	16	2.45V
3	1.26V	17	5.63V
4	0V	18	0V
5	2.47V	19	2.45V
6	1.25V	20	2.45V
7	1.77V	21	1.38V
8	1.83V	22	2.43V
9	0V	23	2.43V
10	2.3V	24	2.46V
11	2V	25	8V
12	2.56V	26	2.45V
13	2.19V	27	2.38V
14	2.17V	28	2.46V

Pin	❐ IC701	❐ IC702
1	0V	6.6V
2	5.8V	1.5V
3	2.7V	4.8V
4	6.6V	7.9V
5	3.9V	4.8V
6	3.9V	0.6V
7	7.9V	6.7V
8	3.9V	0.6V
9	5V	4.8V
10	3.9V	0V
11	5V	0V
12	3.8V	2.5V
13	3.9V	6.1V
14	3.9V	0.6V
15	3.9V	
16	6.6V	
17	3.3V	
18	0V	

IC603

Pin	Voltage	Pin	Voltage
1	N.C.	29	PS
2	1V	30	PS
3	N.C.	31	PS
4	4.8V	32	PS
5	N.C.	33	PS
6	2V	34	PS
7	5.1V	35	PS
8	4.8V	36	PS
9	FM: 0V MW: 4.75V	37	PS
10	LW ON: 0V LW OFF: 4.75V	38	PS
❐ 11	SDK ON: 4.75V SDK OFF: 0V	39	PS
▲ 11	R. MONI ON: 4.7V R.MONI OFF: 0V	40	PS
❐ 12	4.8V	41	PS
▲ 12	N.C.	42	PS
13	LOUD ON: 0V LOUD OFF: 4.76V	43	PS
14	TAPE: 4.9V RADIO: 0V	44	PS
15	MUTE ON: 0V MUTE OFF: 4.75V	45	PS
16	4.6V	46	PS
17	N.C.	47	PS
18	N.C.	48	PS
19	N.C.	49	PS
20	MONO: 4.8V STEREO: 0V	50	PS
21	LOCAL: 4.7V DX: 0V	51	PS
❐ 22	AME ON: 4.8V AME OFF: 0V	52	PS
▲ 22	N.C.	53	PS
23	N.C.	54	PS
24	2.64V	55	PS
25	2.56V	56	PS
26	0V	57	PS
27	N.C.	58	0V
28	N.C.	59	PS
		60	PS
		61	PS
		62	PS
		63	3.5V
		❐ 64	SK ON: 0V SK OFF: 4.7V
		▲ 64	0V

IC1101

Pin	Voltage
1	12.9V
2	2.97V
3	FOR: 0V REV: 2.48V
4	2.88V
5	2.85V
6	2.85V
7	2.85V
8	0V
9	2.84V
10	N.C.
11	2.85V
12	2.85V
13	2.85V
14	2.88V
15	METAL: 9.3V NORMAL: 0V
16	2.96V

Ref. No.	E	C	B
Q001	0V	7.6V	0V
Q002	1.73V	6.68V	2.4V
Q003	0V	0V	0.55V
Q004	0V	DX: 6.5V LOCAL: 0V	DX: 0V LOCAL: 4.65V
Q005	0V	4.6V	0V
Q006	STEREO: 0V MONO: 0V	STEREO: 5V MONO: 0V	STEREO: 0.6V MONO: 5.6V
Q008	4.43V	8.31V	5.03V
Q202	0V	10.2V	LOUD ON: 2V LOUD OFF: 0V
Q203	0V	10.2V	LOUD ON: 0V LOUD OFF: 2V
Q204	0V	0V	MUTE ON: 0.6V MUTE OFF: 0V
Q205	0V	0V	MUTE ON: 0.6V MUTE OFF: 0V
Q206	0V	0V	MUTE ON: 0.6V MUTE OFF: 0V
Q207	0V	0V	MUTE ON: 0.6V MUTE OFF: 0V
Q601	0V	3.74V	0.58V
Q602	0.58V	9.15V	0.96V
Q603	0V	0.3V	MW: 0.3V LW: 4.8V
Q604	0V	0V	MW: 0V FM: 3.7V
❐ Q605	0V	1.2V	0.37V
❐ Q606	0V	1.2V	0.37V
▲ Q607	0V	0V	R.MONI ON: 4.7V R.MONI OFF: 0V
Q608	0V	MUTE ON: 8.9V MUTE OFF: 0V	MUTE ON: 0V MUTE OFF: 4.8V
❐ Q609	0V	AME ON: 2V AME OFF: 0.25V	AME ON: 4.8V AME OFF: 0V
❐ Q610	0V	DK ON: 0V DK OFF: 5.8V	DK ON: 2V DK OFF: 0.25V
Q611	13.6V	0V	13.6V
Q612	13.6V	MUTE ON: 13.5V MUTE OFF: 0V	MUTE ON: 0V MUTE OFF: 13.6V
Q613	0V	MUTE ON: 0V MUTE OFF: 13.6V	MUTE ON: 8V MUTE OFF: 0V
❐ Q614	0V	0V	SDK ON: 0V SDK OFF: 0.7V
❐ Q615	0V	0V	SDK ON: 0V SDK OFF: 0.7V
Q616	0V	0V	GT MUTE ON: 1.83V GT MUTE OFF: 0V
Q617	0V	0V	GT MUTE ON: 1.83V GT MUTE OFF: 0V
Q619	0V	TAPE: 0V RADIO: 14.3V	TAPE: 4.94V RADIO: 0V
Q621	TAPE: 11.5V RADIO: 14.4V	TAPE: 14.3V RADIO: 11.5V	TAPE: 0V RADIO: 14.3V
❐ Q701	0V	4.56V	0.63V
❐ Q702	7.97V	7.95V	0V
❐ Q703	0V	0V	4.74V
❐ Q704	0V	4.73V	2.97V
❐ Q705	0V	0V	4.61V
❐ Q706	7.97V	7.96V	0V
Q803	9.86V	14V	10.5V
Q804	5.54V	13.6V	6.2V
▲ Q809	0V	8.9V	TAPE: 4.9V RADIO: 0V
Q810	0V	FM: 8.5V MW: 0V	FM: 0V MW: 4.8V
Q811	8.5	FM: 1.8V MW: 8.5V	FM: 8.5V MW: 7.8V
Q813	8.56V	14V	9.13V
Q814	8.56V	FM: 8.5V MW: 0V	FM: 7.9V MW: 8.5V
❐ Q815	8V	14V	8.6V
Q1101	0V	FOR: 0V REV: 2.5V	FOR: 4.46V REV: 0V
Q1102	0V	FOR: 0V REV: 4.36V	FOR: 13.9V REV: 0V

NOTE: ❐ : 7190M Model only,
▲ : 7190L Model only,
Others: Common

Measuring Conditions
- Power Supply : DC14.4V
- Measuring Meter : Digital Multi Voltmeter
- Measuring Point Reference : Between Ground
- Measuring Condition : No Signal Input
  MW: 999 kHz
  LW: 218 kHz
  FM: 98.1 MHz
  TAPE: Blank Tape

Schematic Diagram (7190L Model) (Refer to reverse side for IC's and Transistors voltage values.)

IC	IC1101	IC002	IC001 (1/3)	IC001 (2/3)	IC003	IC001 (3/3)	IC201
Transistor (Q)	Q004 Q1101	Q003 Q001 Q002 Q1102	Q005	Q008 Q617	Q621 Q616 Q619	Q604	Q006 Q601 Q602 Q603 Q814 Q811 Q810

Tuner P.C.Board

IC002 LA1145B — FM IF AMP & DET

IC003 AN7465S — NOISE SUPPRESSOR & MPX

Q006 DTC124K — ST. IND. SWITCHING

IC201 BA3114 — LINE AMP

Q005 DTC124K — AUTO STOP SWITCHING

Q008 DTC114TK — AUTO STOP LEVEL SWITCH

Q004 DTC114TK — LO/DX SWITCHING

Q001 2SK1001 — RF AMP

Q002 2SC2412K — AGC

Q003 2SC2412K — LO/DX SWITCHING

IC001 μPC2530GS — AM RADIO

Q604 DTC124K — AM AF MUTE

Q814 2SB851 — FM +B SWITCHING

Q811 2SA874 / Q810 DTC124K — AM +B SWITCHING

Q603 DTC124K — LOW PASS FILTER

Q621 DTA124 / Q619 DTC124K — TAPE/RADIO SWITCHING

Q616,617 DTC114TK — MUTING

Q601,602 2SD661 — LOW PASS FILTER

Q1101 DTC124K — FOR/REV SWITCHING

Q1102 DTC124K — FOR/REV SWITCHING

D1101 MA165TA

D1104 10E2

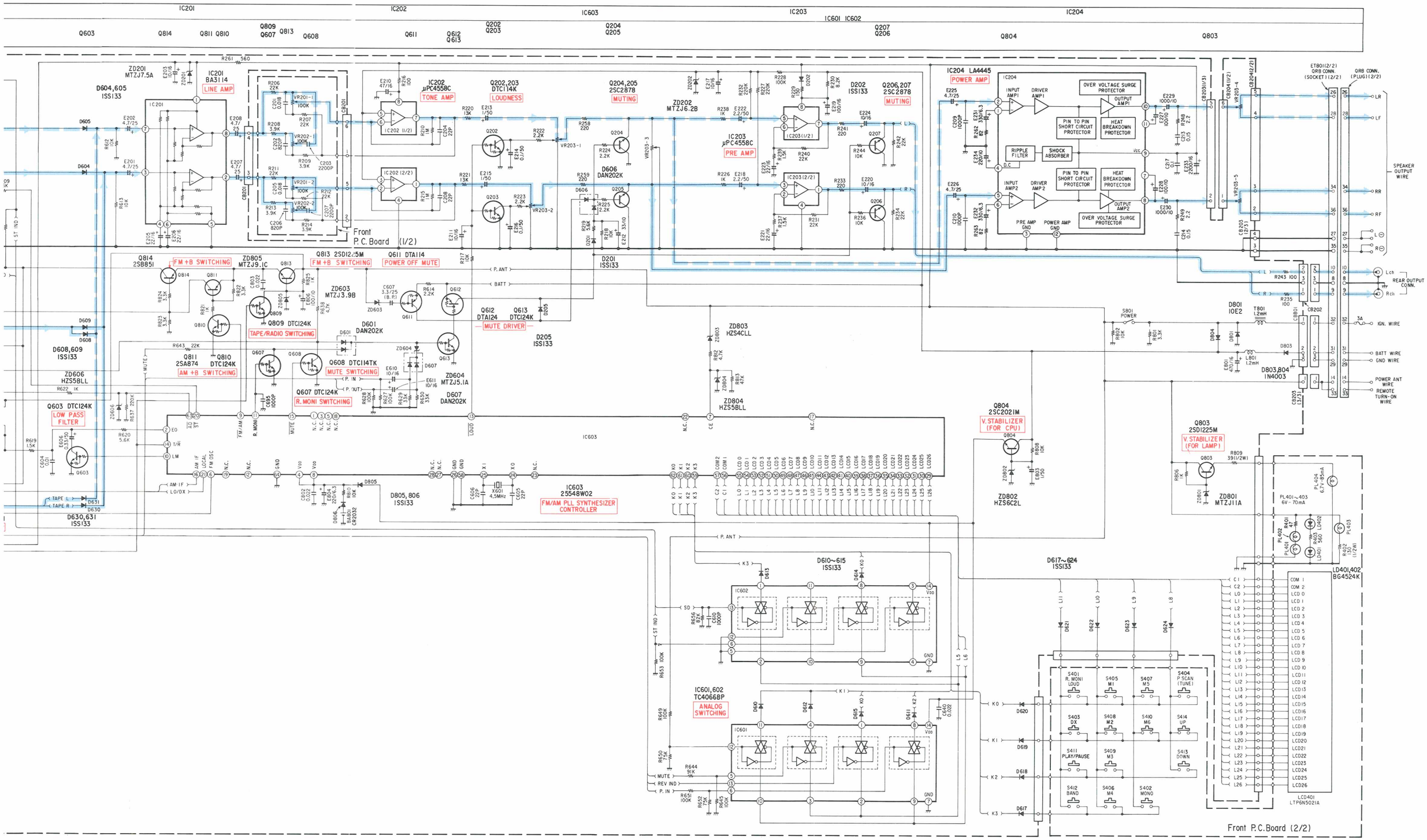
IC1101 TA7705F — EQ AMP

GT Control P.C.Board

Main P.C.Board

A	B	C	D	E	F	G	H

NOTE:
1. All resistance values are in ohms. K= 1,000 M= 1,000,000
2. All capacitance values are in microfarads. P= 1/1,000,000



IC's and Transistors Voltage Values

IC001

Pin	Voltage	Pin	Voltage
1	3.2V	19	3.59V
2	3.2V	20	3.7V
3	2.4V	21	4.59V
4	1.26V	22	4.85V
5	1.26V	23	4.89V
6	1.87V	24	4.3V
7	1.87V	25	5.86V
8	1.87V	26	5.95V
9	0V	27	3.36V
10	5.78V	28	3.36V
11	5.16V	29	8.4V
12	0V	30	3.36V
13	5.06V	31	0V
14	0V	32	8.06V
15	3V	33	5.73V
16	3V	34	5.73V
17	8.43V	35	5.74V
18	3.59V	36	3.23V

IC002

Pin	Voltage
1	2.8V
2	2.8V
3	0V
4	4V
5	3.3V
6	2V
7	4.97V
8	4.97V
9	4.97V
10	4.97V
11	4.97V
12	8.11V
13	0V
14	0V
15	0V
16	3.9V
17	3.72V
18	4.59V

IC201~204, 601, 602

Pin	IC201	IC202	IC203	IC204	IC601	❐ IC602	▲ IC602
1	7.55V	6V	6V	1.2V	PS	PS	PS
2	3.84V	6V	6V	14mV	PS	PS	PS
3	3.79V	6V	6V	0V	PS	PS	N.C.
4	3.79V	0V	0V	13.8V	PS	PS	N.C.
5	0V	6V	6V	16mV	0V	5V	0V
6	3.78V	6V	6V	1.2V	5.2V	5V	5V
7	3.78V	6V	6V	12.6V	0V	0V	0V
8	3.74V	13.8V	12.8V	7.2V	PS	PS	PS
9				13.9V	PS	PS	PS
10				7.2V	PS	N.C.	N.C.
11				12.6V	PS	N.C.	N.C.
12				0V	5.6V	0V	0V
13					5.5V	5V	5V
14					5.5V	5.6V	5.6V

IC003

Pin	Voltage	Pin	Voltage
1	2.3V	15	2.45V
2	1.9V	16	2.45V
3	1.26V	17	5.63V
4	0V	18	0V
5	2.47V	19	2.45V
6	1.25V	20	2.45V
7	1.77V	21	1.38V
8	1.83V	22	2.43V
9	0V	23	2.43V
10	2.3V	24	2.46V
11	2V	25	8V
12	2.56V	26	2.45V
13	2.19V	27	2.38V
14	2.17V	28	2.46V

Pin	❐ IC701	❐ IC702
1	0V	6.6V
2	5.8V	1.5V
3	2.7V	4.8V
4	6.6V	7.9V
5	3.9V	4.8V
6	3.9V	0.6V
7	7.9V	6.7V
8	3.9V	0.6V
9	5V	4.8V
10	3.9V	0V
11	5V	0V
12	3.8V	2.5V
13	3.9V	6.1V
14	3.9V	0.6V
15	3.9V	
16	6.6V	
17	3.3V	
18	0V	

IC603

Pin	Voltage	Pin	Voltage
1	N.C.	29	PS
2	1V	30	PS
3	N.C.	31	PS
4	4.8V	32	PS
5	N.C.	33	PS
6	2V	34	PS
7	5.1V	35	PS
8	4.8V	36	PS
9	FM: 0V MW: 4.75V	37	PS
10	LW ON: 0V LW OFF: 4.75V	38	PS
❐ 11	SDK ON: 4.75V SDK OFF: 0V	39	PS
▲ 11	R. MONI ON: 4.7V R.MONI OFF: 0V	40	PS
❐ 12	4.8V	41	PS
▲ 12	N.C.	42	PS
13	LOUD ON: 0V LOUD OFF: 4.76V	43	PS
14	TAPE: 4.9V RADIO: 0V	44	PS
15	MUTE ON: 0V MUTE OFF: 4.75V	45	PS
16	4.6V	46	PS
17	N.C.	47	PS
18	N.C.	48	PS
19	N.C.	49	PS
20	MONO: 4.8V STEREO: 0V	50	PS
21	LOCAL: 4.7V DX: 0V	51	PS
❐ 22	AME ON: 4.8V AME OFF: 0V	52	PS
▲ 22	N.C.	53	PS
23	N.C.	54	PS
24	2.64V	55	PS
25	2.56V	56	PS
26	0V	57	PS
27	N.C.	58	0V
28	N.C.	59	PS
		60	PS
		61	PS
		62	PS
		63	3.5V
		❐ 64	SK ON: 0V SK OFF: 4.7V
		▲ 64	0V

IC1101

Pin	Voltage
1	12.9V
2	2.97V
3	FOR: 0V REV: 2.48V
4	2.88V
5	2.85V
6	2.85V
7	2.85V
8	0V
9	2.84V
10	N.C.
11	2.85V
12	2.85V
13	2.85V
14	2.88V
15	METAL: 9.3V NORMAL: 0V
16	2.96V

Ref. No.	E	C	B
Q001	0V	7.6V	0V
Q002	1.73V	6.68V	2.4V
Q003	0V	0V	0.55V
Q004	0V	DX: 6.5V LOCAL: 0V	DX: 0V LOCAL: 4.65V
Q005	0V	4.6V	0V
Q006	STEREO: 0V MONO: 0V	STEREO: 5V MONO: 0V	STEREO: 0.6V MONO: 5.6V
Q008	4.43V	8.31V	5.03V
Q202	0V	10.2V	LOUD ON: 2V LOUD OFF: 0V
Q203	0V	10.2V	LOUD ON: 0V LOUD OFF: 2V
Q204	0V	0V	MUTE ON: 0.6V MUTE OFF: 0V
Q205	0V	0V	MUTE ON: 0.6V MUTE OFF: 0V
Q206	0V	0V	MUTE ON: 0.6V MUTE OFF: 0V
Q207	0V	0V	MUTE ON: 0.6V MUTE OFF: 0V
Q601	0V	3.74V	0.58V
Q602	0.58V	9.15V	0.96V
Q603	0V	0.3V	MW: 0.3V LW: 4.8V
Q604	0V	0V	MW: 0V FM: 3.7V
❐ Q605	0V	1.2V	0.37V
❐ Q606	0V	1.2V	0.37V
▲ Q607	0V	0V	R.MONI ON: 4.7V R.MONI OFF: 0V
Q608	0V	MUTE ON: 8.9V MUTE OFF: 0V	MUTE ON: 0V MUTE OFF: 4.8V
❐ Q609	0V	AME ON: 2V AME OFF: 0.25V	AME ON: 4.8V AME OFF: 0V
❐ Q610	0V	DK ON: 0V DK OFF: 5.8V	DK ON: 2V DK OFF: 0.25V
Q611	13.6V	0V	13.6V
Q612	13.6V	MUTE ON: 13.5V MUTE OFF: 0V	MUTE ON: 0V MUTE OFF: 13.6V
Q613	0V	MUTE ON: 0V MUTE OFF: 13.6V	MUTE ON: 8V MUTE OFF: 0V
❐ Q614	0V	0V	SDK ON: 0V SDK OFF: 0.7V
❐ Q615	0V	0V	SDK ON: 0V SDK OFF: 0.7V
Q616	0V	0V	GT MUTE ON: 1.83V GT MUTE OFF: 0V
Q617	0V	0V	GT MUTE ON: 1.83V GT MUTE OFF: 0V
Q619	0V	TAPE: 0V RADIO: 14.3V	TAPE: 4.94V RADIO: 0V
Q621	TAPE: 11.5V RADIO: 14.4V	TAPE: 14.3V RADIO: 11.5V	TAPE: 0V RADIO: 14.3V
❐ Q701	0V	4.56V	0.63V
❐ Q702	7.97V	7.95V	0V
❐ Q703	0V	0V	4.74V
❐ Q704	0V	4.73V	2.97V
❐ Q705	0V	0V	4.61V
❐ Q706	7.97V	7.96V	0V
Q803	9.86V	14V	10.5V
Q804	5.54V	13.6V	6.2V
▲ Q809	0V	8.9V	TAPE: 4.9V RADIO: 0V
Q810	0V	FM: 8.5V MW: 0V	FM: 0V MW: 4.8V
Q811	8.5	FM: 1.8V MW: 8.5V	FM: 8.5V MW: 7.8V
Q813	8.56V	14V	9.13V
Q814	8.56V	FM: 8.5V MW: 0V	FM: 7.9V MW: 8.5V
❐ Q815	8V	14V	8.6V
Q1101	0V	FOR: 0V REV: 2.5V	FOR: 4.46V REV: 0V
Q1102	0V	FOR: 0V REV: 4.36V	FOR: 13.9V REV: 0V

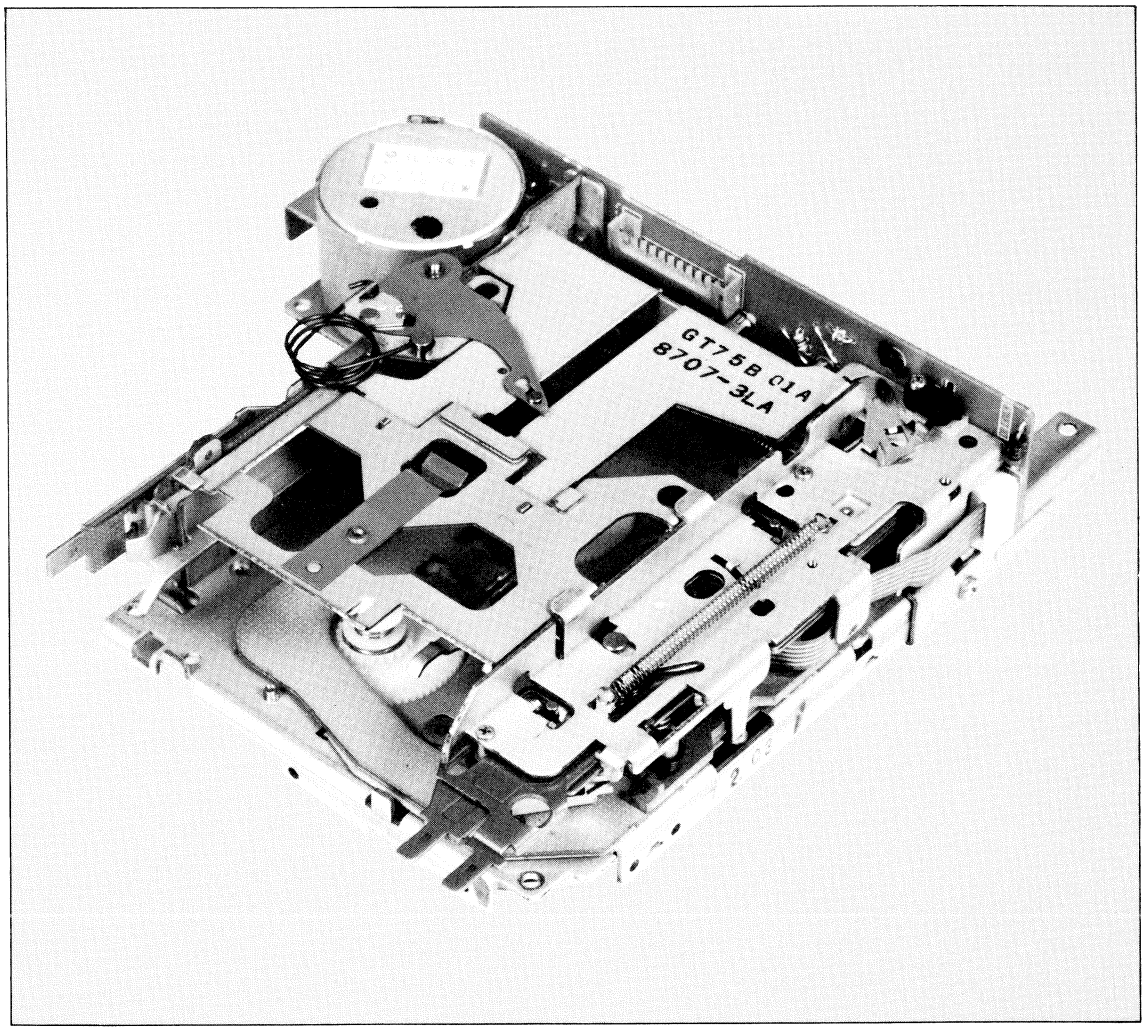
NOTE: ❐ : 7190M Model only,
▲ : 7190L Model only,
Others: Common

Measuring Conditions
- Power Supply : DC14.4V
- Measuring Meter : Digital Multi Voltmeter
- Measuring Point Reference : Between Ground
- Measuring Condition : No Signal Input
  MW: 999 kHz
  LW: 218 kHz
  FM: 98.1 MHz
  TAPE: Blank Tape

ALPINE SERVICE MANUAL

Exploded View & Parts List For Cassette Deck Mechanism

ADDENDUM & REVISED (III)



GT SERIES

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Replacement of Mechanical Parts

1. Replacement of Belt

(1) Remove two screws marked " ● " and " ◎ " as shown in Figure 1 and remove the flywheel mounting bracket.
(2) Remove one screw " ○ " and motor pulley cover as shown in Figure 1.
(3) Clean a good belt with alcohol and thread the belt as shown in Figure 2. Assembly the unit, performing above steps in reverse order.
(4) Confirm the tape speed and wow/flutter with the test tape (MTT-111).

2. Replacement of Motor

(1) Remove two screws marked " △ " as shown in Figure 1.
(2) Remove two belts (A) and (B) as shown in Figure 2.
(3) Remove wire leads from the motor terminal and the motor will be removed.

3. Replacement of Flywheel

(1) Remove the flywheel mounting bracket and the belt (A) as shown in Figure 2.
(2) Remove the flywheel by moving it straight up.
(3) Mount a good flywheel. (In this case also insert the flywheel washer and apply a drop of " mobile 1 " oil.)
(4) Mount the belt and the flywheel mounting bracket.
(5) After assembling, confirm the tape speed and wow-flutter, using a test tape (MTT-111).

Notes :

1. Take care the belt is not stained with oil.
2. When tightening screws for the flywheel bracket, apply tightening torque of 4.5kg•cm (marked " ◎ ") and 2.5kg • cm (marked " ● ").
   (GT75B Series model only)
   When tightening screws for the flywheel bracket, apply tightening torque of 6kg • cm (marked " ◎ ") and 2.3kg • cm (marked " ● ")
   (On GT75L01O / GT75L11O / GT75L22O / GT75L02O / GT75L02N / GT75L12O / GT75L12N models only)

4. Replacement of Reels

(1) Remove two flywheels.
(2) Remove two lock washers as shown in Figure 3 and the two reels will be removed.
(3) Replace with good reels and assembly them using above steps in reverse order.
(4) After assembling, confirm the tape speed and wow-flutter using a test tape (MTT-111).

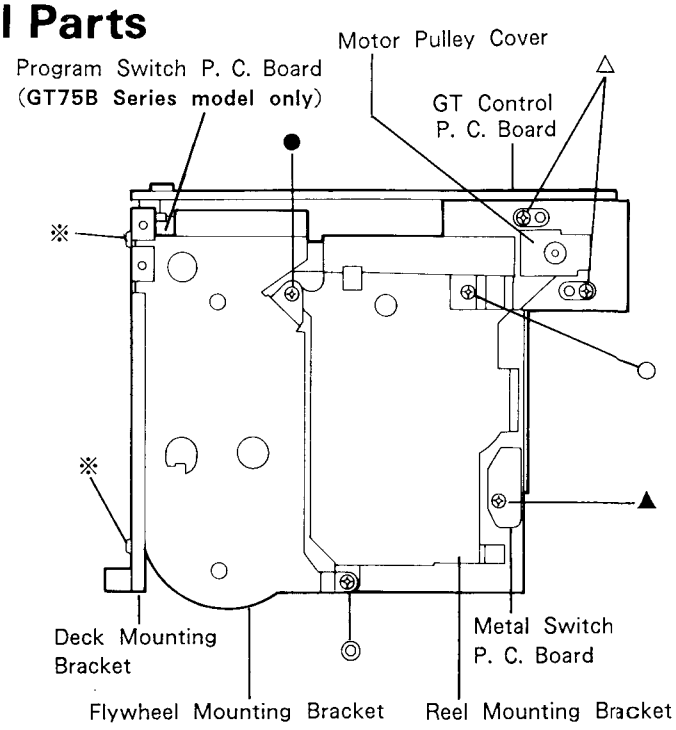


Figure 1

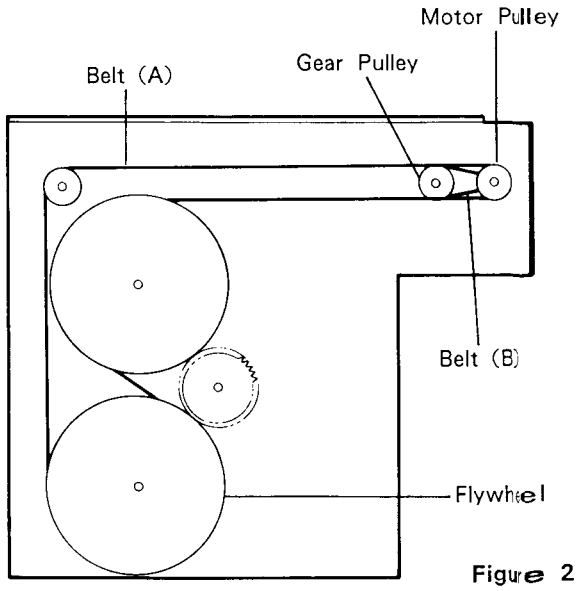


Figure 2

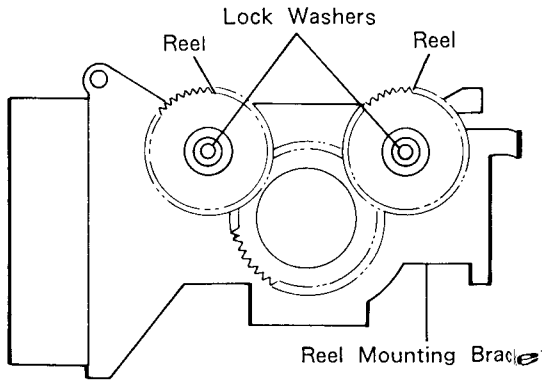


Figure 3

5. Replacement of Head

(1) Remove two screws marked " ※ " as shown in Figure 1.

(2) Remove two screws marked " ■ " as shown in Figure 8.

(3) Remove two screws marked " ◩ " and the head flexible P. C. Board can be removed as shown in Figure 4. Then remove the P. C. Board.

(4) Replace with a good head and assembly them using above steps in reverse order.

(5) After assembling, adjust the head azimuth using the test tape (MTT-114NB). Apply the screw-lock paint on the adjusting screws.

Note : Since the flexible P. C. Board is apt to be damaged, handle it with sufficient care.

Perform the head height adjustment.

(6) Place the height adjustment gauge (M-300 or AT-500) on the head base as shown in Figures 5, 6 and 7, and adjust the gauge height so that the check bar can enter the tape head guide smoothly.

(7) When the check bar touches top or bottom guide of the tape guide, insert a spacer (of 0.1mm thickness or a polyslider washer of 0.13mm in thickness). (Or remove the spacer to adjust the height).

Note : As shown in Figure 6, if the height gauge is not available, run a tape as usual and adjust the height (head and small guide window) so that no tape curling is observed.

6. Replacement fo Pinch Rollers

(1) Remove RF Frame Bracket.

(2) Remove two lock washers and two pinch roller springs and the pinch rollers can be removed as shown in Figure 4.

(3) Replace with good pinch rollers and clean them with alchol and assembly it using above steps in reverse order.

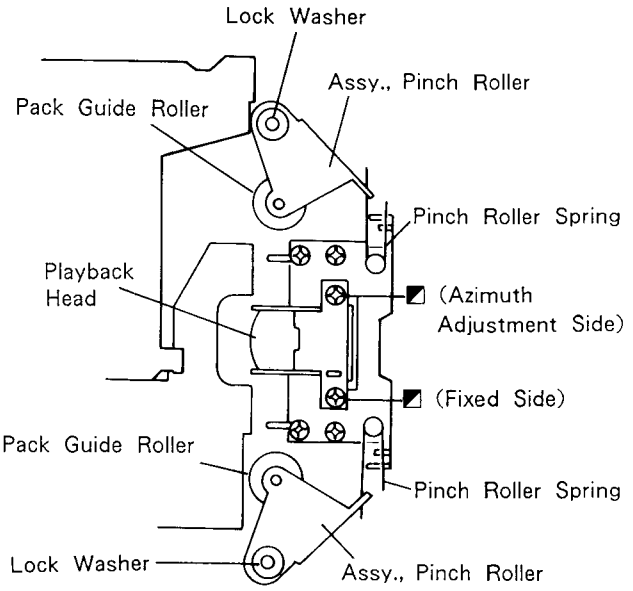
(4) After assembling, confirm the tape speed and wow-flutter with the test tape (MTT-111).

7. Replacement of Metal Switch P. C. Board

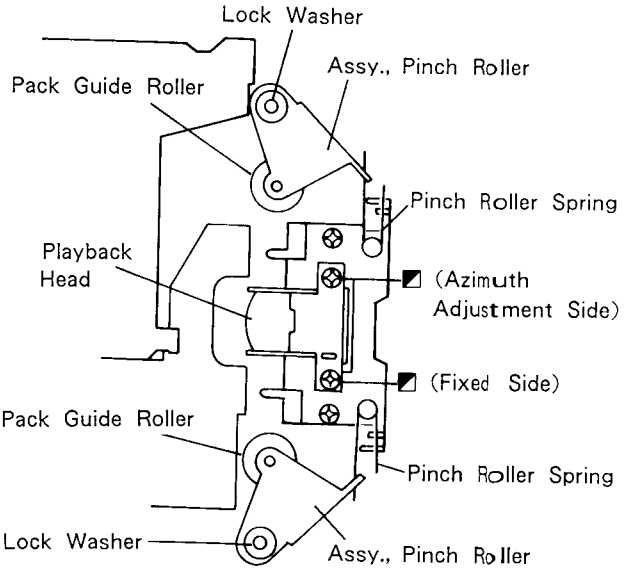
(1) Remove a screw marked " ▲ " in Figure 1.

Note : Since the wire parallel is apt to be damaged, handle it with sufficient care.

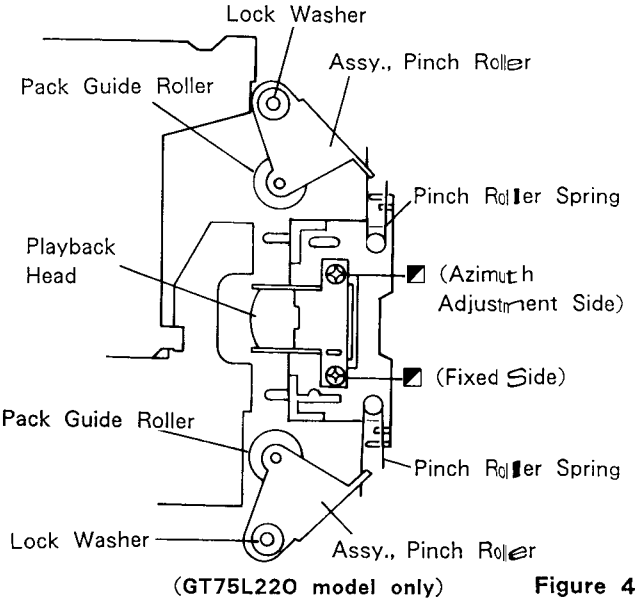
(2) Replace the board with a good one and assembly the board using above steps in reverse order.



(GT75B Series model only) **Figure 4**



(GT75L010/GT75L110 models only) **Figure 4**



(GT75L220 model only) **Figure 4**

8. Replacement of GT Control P. C. Board and Program Switch P. C. Board

(GT75B Series model only)

(1) Remove solders as shown in Figure 9.
(2) Remove two screws marked "□" as shown in Figure 9.
(3) Remove all connectors and wire leads from the P. C. Boards.
(4) After replacing with good ones, assemble them using disassembly instructions in reverse order.

Replacement of GT Control P. C. Board

(On GT75L010/GT75L110/GT75L220 models only)

(1) Remove solders as shown in Figure 9.
(2) Remove two screws marked "□" as shown in Figure 9.
(3) Remove all connectors and wire leads from the P. C. Boards.
(4) After replacing with a good one, assemble the board using disassembly instructions in reverse order.

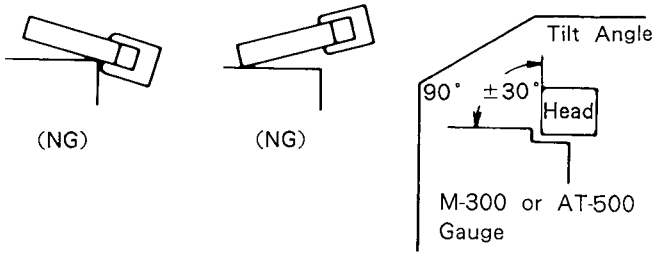


Figure 5

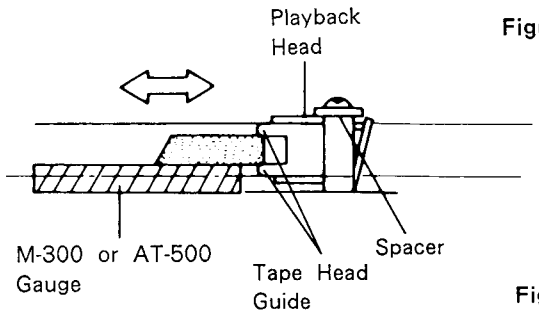
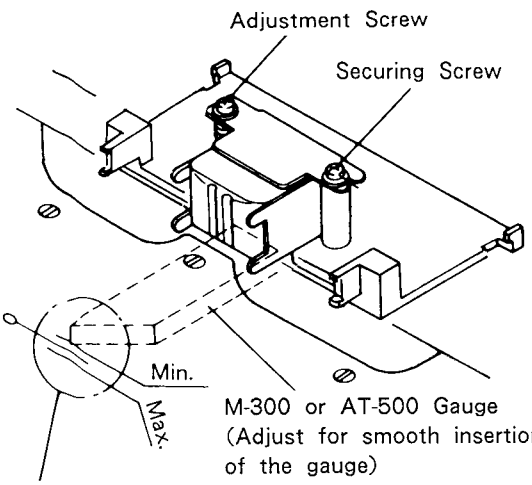
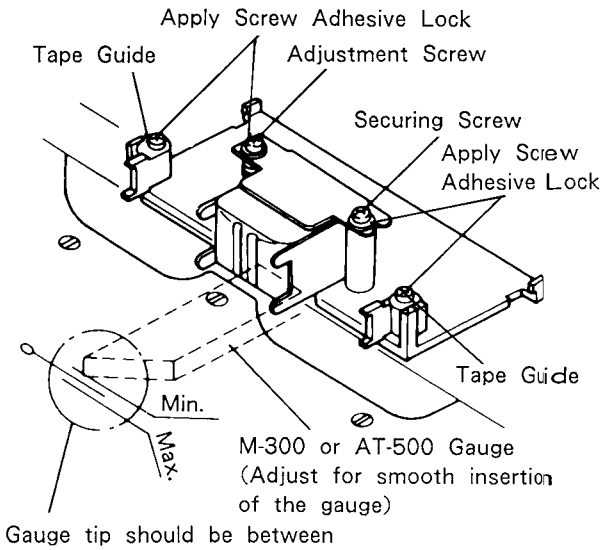


Figure 6



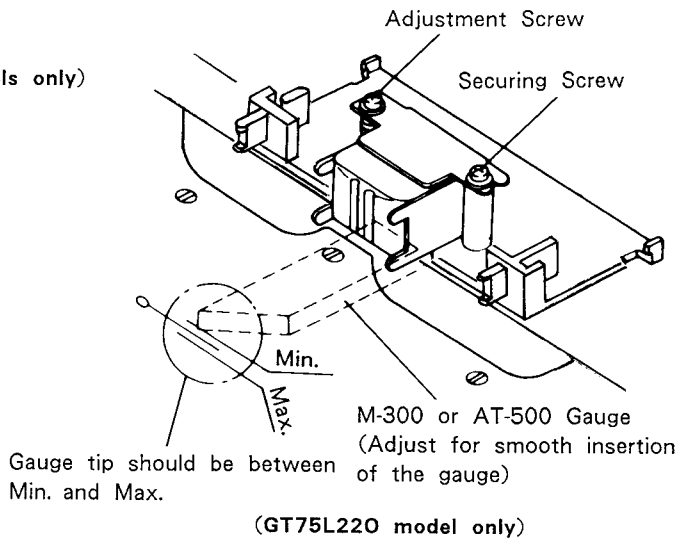
(GT75L010/GT75L110 models only)

Figure 7



(GT75B Series model only)

Figure 7



(GT75L220 model only)

9. Replacement of Mute Switch P. C. Board

(GT75B Series model only)

(1) Remove one screw marked "★" as shown in Figure 8.

(2) After replacing with a good one, assemble the P. C. Board using disassembly instructions in reverse order.

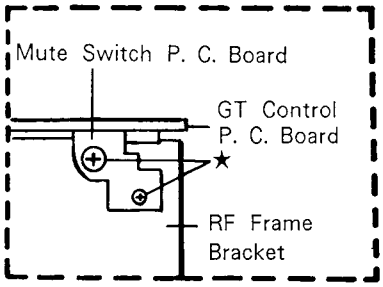
(On GT75B11A／GT75B11C／GT75B11D models only)

(1) Remove two screws marked "★" as shown in Figure A .

(2) After replacing with a good one, assemble the P. C. Boards using above steps in reverse order.

Figure Ⓐ

(GT75B11A／GT75B11C／GT75B11D models only)



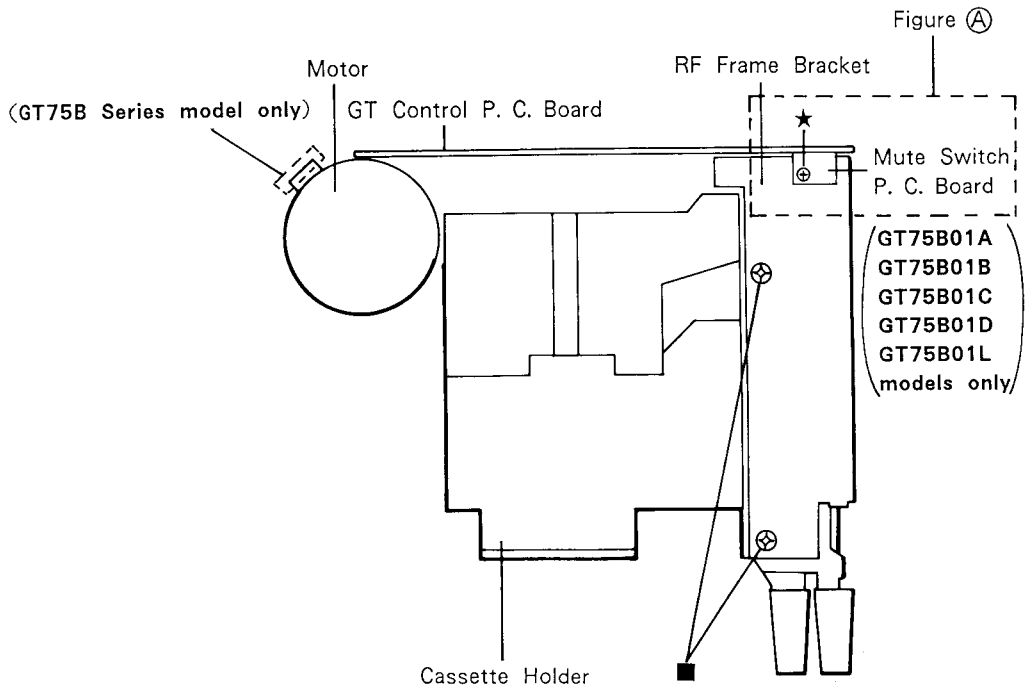
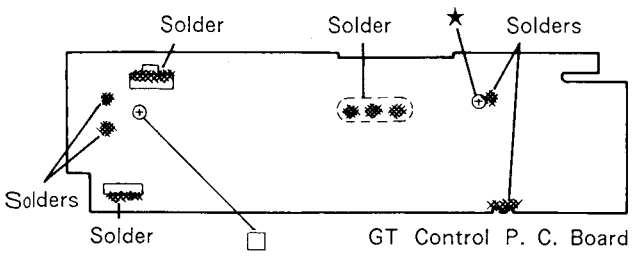
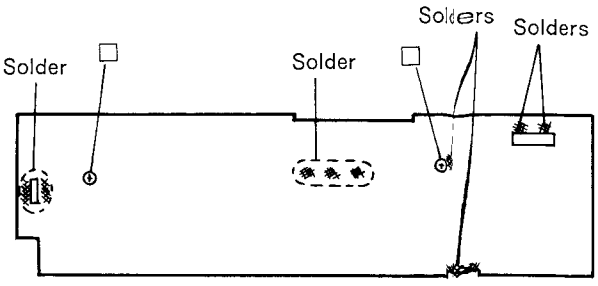


Figure 8



(GT75B Series model only)

Figure 9



(GT75L01O／GT75L11O／GT75L22O models only)

Figure 9

Parts List (1/3)

○ : For GT75B01A model only, ● : For GT75B01B model only,
□ : For GT75B11A model only, ■ : For GT75B11C model only, Others : Common.

Symbol No.	Index	Part No.	Description
201	5-C	43A63281F01	Roller, Plate Base
202	5-C	43A63282F01	Roller, Eject Arm
203	5-C	43A80430F01	Roller, Eject Arm (B)
204	5-B	41A80448F01	Spring, Turn Eject
205	5-C	41B80444F04	Spring
206	3-C	04A41345P15	Washer, Lock (M1.2)
207		04A41345P02	Washer, Lock (M1.7)
208	3-A	01A82275F03	Assy., Riv. Plate Base
209	4-B	45B82846F01	Slider
210	4-B	47A63278F01	Shaft, Slider
211	5-B	01A80457F01	Assy., Riv. Eject Arm
213	5-C	01A80983F01	Assy., Riv. Eject Lever
214	4-B	01A63494F01	Assy., Riv. Cassette Holder
216	4-E	01A80461F01	Assy., Riv. Reverse Frame
217	3-E	44B80378F01	Gear, Change
218	3-E	45A80366F01	Lever, Reverse Lock
219	3-E	45A80367F01	Lever, Reverse Act
220	3-E	41B80444F02	Spring
221	3-E	41B80444F03	Spring
222		04A41345P01	Washer, Lock (M1.2)
224		43A80431F01	Roller, Sub Head Base
225	2-C	41B80444F01	Spring
226	2-C	01A80454F01	Assy., Riv. Head Base Act
227	3-D	01A80458F01	Assy., Riv. RF Arm
228	4-B	07B80356F01	Bracket, RF Frame
231	3-B	01A84687F01	Assy., Riv. RF Link
232	3-A	45A80361F01	Lever, Mute
□ 233	2-C	84A84245F01	Mute Switch P. C. Board
■ 233	2-C	84A84245F01	Mute Switch P. C. Board
○ 233	2-D	84A82645F01	Mute Switch P. C. Board
● 233	2-D	84A82645F01	Mute Switch P. C. Board
234	3-C	41A80446F01	Spring, RF Lever
235	4-B	41B80444F06	Spring
236		03S56479F04	Screw, Pan (M2 × 7)
237	3-A	01A80459F01	Assy., Riv. Program Push Lever
238	3-C	43A80427F01	Roller, Head Base (C)
239		03S56479F07	Screw, Countersunk (M2.6 × 3)
241	2-A	84T80469F01	Head P. C. Board
242	3-B	07B80396F01	Frame, Head
243	2-B	47A80493F01	Shaft, Head Frame
244	2-B	43A80492F01	Roller, Head Frame
245		43B63198F01	Tape, Guide
246		43A80428F01	Roller, Head
247	3-B	41A63286F03	Spring, Pinch Roller
248	2-B	41A63286F04	Spring, Pinch Roller
249		41A63290F01	Spring, Tape Guide
250		41A80445F01	Spring, Head
251		03S40019G03	Screw, F-Locks (M2 × 4)
252	3-F	45A80386F01	Lever, Swing
253		49A64626F01	Reel, Ring
254		49A64627F01	Reel, Cap
255		41A64628F01	Spring, Reel
256	4-G	41A80450F01	Spring, Reel Clutch
257	4-F	03A80490F01	Screw, Flat (M1.7 × 1.5)
258	3-F	04S40075G23	Washer, Polyslider (M5.2)
259	4-G	01A80462F01	Assy., Riv. Bracket Reel
260	3-F	01A80463F01	Assy., Riv. Sub Reel
261	4-E	44A80392F01	Gear, Clutch
262	4-F	45A80393F01	Lever, Clutch
263	4-F	43A80394F01	Bush, Clutch
264	4-F	41A80395F01	Spring, Clutch
265	4-G	01V81200F63	Assy., Flywheel Bracket
266	2-B	45A80364F01	Lever, RF Lock
267	2-B	41B80444F05	Spring
268	2-B	01A80460F01	Assy., Riv. Play Solenoid

NOTE : The parts without part numbers are not supplied.

○ : For GT75B01A model only, ● : For GT75B01B model only, □ : For GT75B11A model only,
■ : For GT75B11C model only, Others : Common.

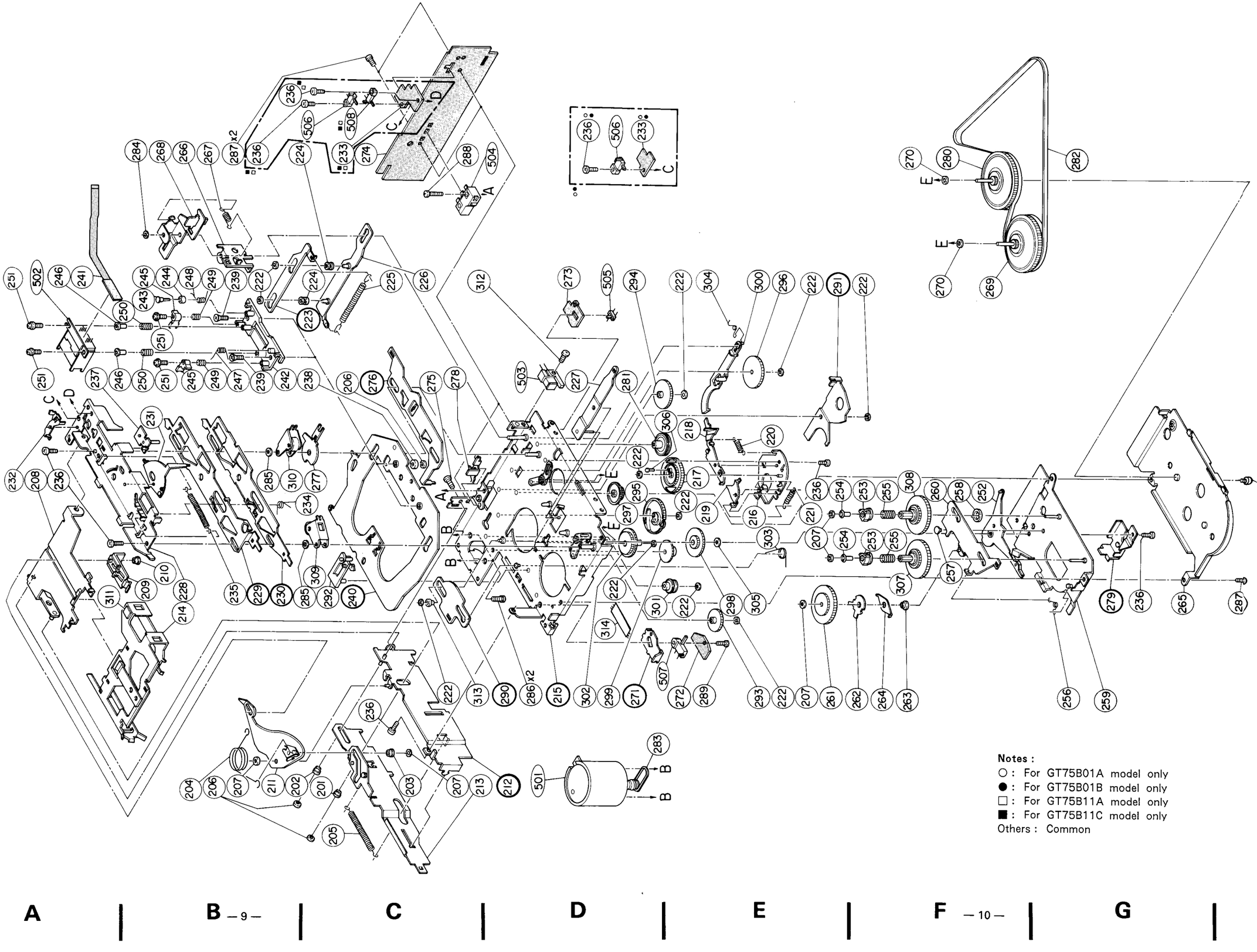
Symbol No.	Index	Part No.	Description
269	2-F	01T63210F05	Assy., Flywheel
270		04S40075G05	Washer, Polyslider (M2.1)
272	4-E	84A82646F01	Metal Switch P. C. Board
273	2-D	84A80432F01	Program Switch P. C. Board
□ 274	2-C	01V84300F56	Assy., GT Control P. C. Board
○ 274	2-C	01V81800F72	Assy., GT Control P. C. Board
● 274	2-C	01V91700F39	Assy., GT Control P. C. Board
■ 274	2-C	01V93300F91	Assy., GT Control P. C. Board
275	3-C	03S44205G42	Screw, Pan (M2.6 × 4)
277	3-C	45A80373F01	Lever, Program
278	3-C	45A80375F01	Lever, Switch
280	2-F	01T63210F06	Assy., Flywheel
281	3-D	49A83022F01	Pully, Idler
282	2-G	42A40969F01	Belt
283	5-D	42A80397F01	Belt
284	2-B	04A41345P14	Washer, Lock (M2.1)
285		04A41345P25	Washer, Lock (M3.1)
286	4-D	03D40014G12	Screw, W/Washer (M2.6 × 4)
287		03S44205G07	Screw, Pan (M2.6 × 5)
288	2-C	03S68259F06	Screw, Bind (M2.3 × 8)
289	4-E	03S68259F03	Screw, Pan (M2 × 7)
292	4-C	45A80387F01	Lever, Reel Brake
293	4-E	44A63196F01	Gear, Take Up
294	2-D	44A80382F01	Gear, Take Up
295	3-D	44B80379F01	Gear, Pause
296	2-E	44A80380F01	Gear, Reverse Act
297	4-D	44A80381F01	Gear, Reverse Idler
298	4-E	44A80383F01	Gear, Pause Idler
299	4-D	44A80385F01	Gear, Motor Idler
300	2-E	45B80388F01	Lever, Trigger
301	4-D	44A80384F01	Gear, Pulley
302	4-D	44A63197F01	Gear, RF Idler
303	4-E	41A80447F01	Spring, Pack
304	2-E	41A80449F01	Spring, Program Trigger
305	4-E	04A41345P04	Washer, Lock (M2.6)
306	3-E	47A80423F01	Shaft, Change Gear
307	4-F	01T80390F01	Assy., Reel
308	3-F	01T80390F02	Assy., Reel
309	4-C	01T80433F01	Assy., Pinch Roller
310	3-B	01T80433F02	Assy., Pinch Roller
311	4-A	43A90918F01	Spacer, Polyslider
312	2-D	03S68259F09	Screw, Pan (M2 × 6)
313	4-C	43A90769F01	Roller, Eject Com
314	4-D	30T84002F01	Wire, Parallel 2P

Miscellaneous

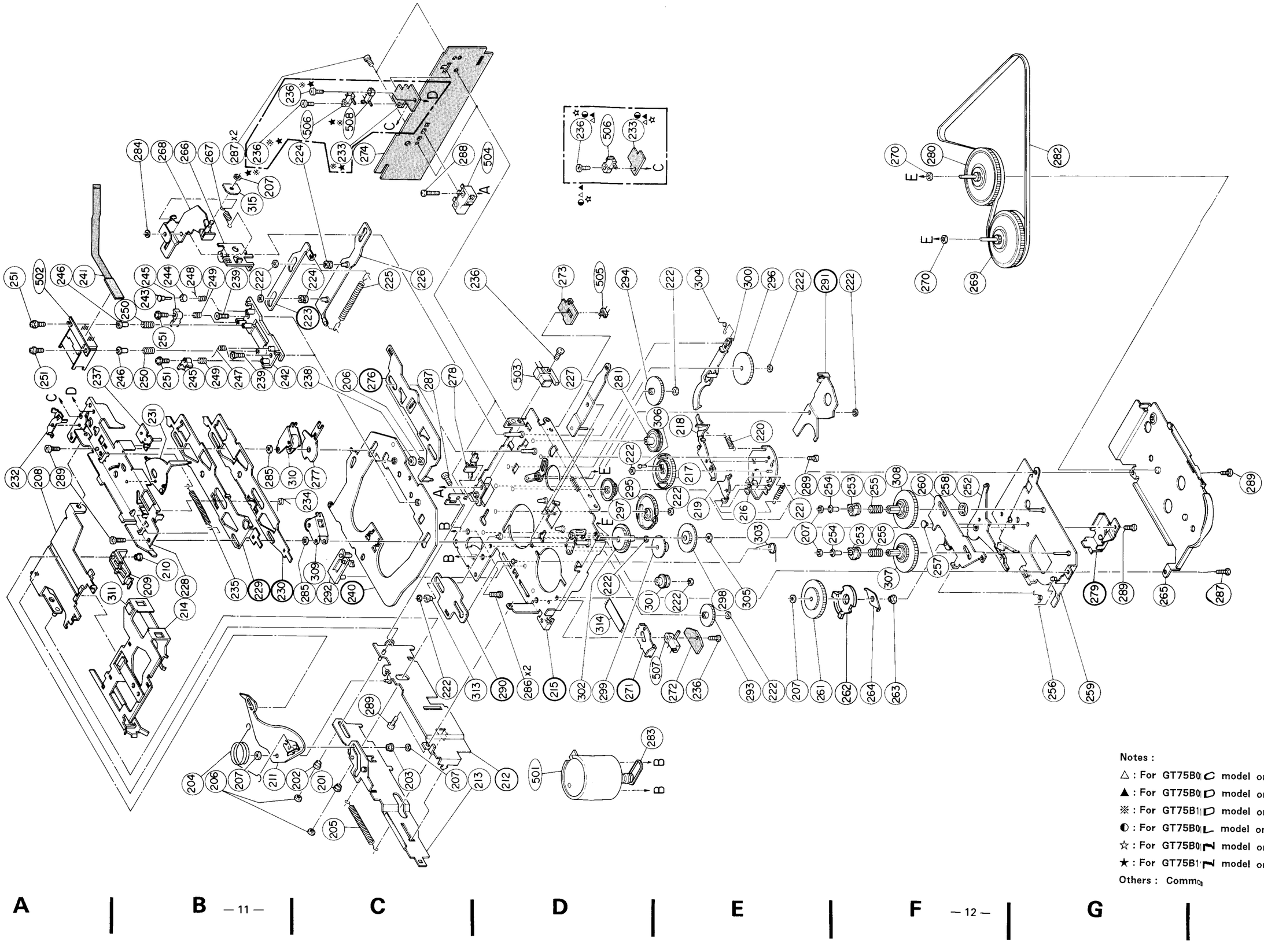
Symbol No.	Index	Part No.	Description
501	5-D	01V81200F64	Assy., Motor
○ 502	2-A	88T50977F01	Head, Playback
● 502	2-A	88T50977F01	Head, Playback
□ 502	2-A	88T74130F01	Head, Playback
■ 502	2-A	88T74130F01	Head, Playback
503	3-D	01T80451F01	Assy., Keep Solenoid
504	2-D	40T52216F01	Switch, Micro
505	2-D	40T63432F01	Switch, Slide
506		40T71025F01	Switch, Detector
507	4-E	40T71025F03	Switch, Detector
□ 508	2-C	40T71025F03	Switch, Detector
■ 508	2-C	40T71025F03	Switch, Detector

NOTE : The parts without part numbers are not supplied.

Exploded View (1/3)



Exploded View (2/3)


Notes :
△ : For GT75B0[C] model only
▲ : For GT75B0[D] model only
※ : For GT75B1[D] model only
◐ : For GT75B0[L] model only
☆ : For GT75B0[N] model only
★ : For GT75B1[N] model only
Others : Comm[o]

Parts List (2/3)

△ : For GT75B01C model only, ▲ : For GT75B01D model only,
※ : For GT75B11D model only, ◐ : For GT75B01L model only,
☆ : For GT75B01N model only, ★ : For GT75B11N model only, Others : Common.

Symbol No.	Index	Part No.	Description
201	5-C	43A63281F01	Roller, Plate Base
202	5-C	43A63282F01	Roller, Eject Arm
203	5-C	43A80430F01	Roller, Eject Arm (B)
204	5-B	41A80448F01	Spring, Turn Eject
205	5-C	41B80444F04	Spring
206		04A41345P15	Washer, Lock (M1.2)
207		04A41345P02	Washer, Lock (M1.7)
208	3-A	01A82275F03	Assy., Riv. Plate Base
209	4-B	45B10376W01	Slider
210	4-B	47A63278F01	Shaft, Slider
211	5-B	01A80457F01	Assy., Riv. Eject Arm
213	5-D	01A80983F01	Assy., Riv. Eject Lever
214	4-B	01A63494F01	Assy., Riv. Cassette Holder
216	4-E	01A80461F01	Assy., Riv. Reverse Frame
217	3-E	44B80378F01	Gear, Change
218	3-E	45A80366F01	Lever, Reverse Lock
219	4-E	45A80367F01	Lever, Reverse Act
220	3-F	41B80444F02	Spring
221	4-E	41B80444F03	Spring
222		04A41345P01	Washer, Lock (M1.2)
224		43A80431F01	Roller, Sub Head Base
225	2-C	41B80444F01	Spring
226	2-C	01A80454F01	Assy., Riv. Head Base Act
227	3-D	01A80458F01	Assy., Riv. RF Arm
228	4-B	07B80356F01	Bracket, RF Frame
231	3-B	01A84687F01	Assy., Riv. RF Link
232	3-A	45A80361F01	Lever, Mute
※ 233	2-C	84A84245F01	Mute Switch P. C. Board
▲ 233	2-D	84A82645F01	Mute Switch P. C. Board
△ 233	2-D	84A82645F01	Mute Switch P. C. Board
◐ 233	2-D	84A82645F01	Mute Switch P. C. Board
☆ 233	2-D	84A82645F01	Mute Switch P. C. Board
★ 233	2-C	84A84245F01	Mute Switch P. C. Board

Symbol No.	Index	Part No.	Description
234	3-C	41A80446F01	Spring, RF Lever
235	4-B	41B80444F06	Spring
236		03S10042W02	Screw, Pan (M2 × 7)
237	3-A	01A80459F01	Assy., Riv. Program Push Lever
238	3-C	43A80427F01	Roller, Head Base (C)
239		03S56479F07	Screw, Countersunk (M2.6 × 3)
241	2-A	84T10306W01	Head P. C. Board
242	3-B	07B80396F01	Frame, Head
243	2-B	47A80493F01	Shaft, Head Frame
244	2-B	43A80492F01	Roller, Head Frame
245		43B63198F01	Tape, Guide
246		43A80428F01	Roller, Head
247	3-B	41A63286F03	Spring, Pinch Roller
248	2-B	41A63286F04	Spring, Pinch Roller
249		41A63290F01	Spring, Tape Guide
250		41A80445F01	Spring, Head
251		03S40019G03	Screw, F-Locks (M2 × 4)
252	3-F	45A80386F01	Lever, Swing
253		49A64626F01	Reel, Ring
254		49A64627F01	Reel, Cap
255		41A64628F01	Spring, Reel
256	4-G	41A80450F01	Spring, Reel Clutch
257	4-F	03A80490F01	Screw, Flat (M1.7 × 1.5)
258	3-F	04S40075G23	Washer, Polyslider (M5.2)
259	4-G	01A80462F01	Assy., Riv. Bracket Reel
260	3-F	01A80463F01	Assy., Riv. Sub Reel
261	4-E	44A80392F01	Gear, Clutch
262	5-F	45A10318W01	Lever, Clutch
263	4-F	43A80394F01	Bush, Clutch
264	4-F	41A80395F01	Spring, Clutch
265	4-G	01V81200F63	Assy., Flywheel Bracket
266	2-B	45A80364F01	Lever, RF Lock
267	2-B	41B80444F05	Spring
268	2-B	01A94367F01	Assy., Riv. Play Solenoid
269	2-F	01T63210F05	Assy., Flywheel

NOTE : The parts without part numbers are not supplied.

△ : For GT75B01C model only, ▲ : For GT75B01D model only, ※ : For GT75B11D model only,
◐ : For GT75B01L model only, ☆ : For GT75B01N model only, ★ : For GT75B11N model only,
Others : Common.

Symbol No.		Index	Part No.	Description		
	270		04S40075G05	Washer, Polyslider (M2.1)		
	272	4-E	84A82646F01	Metal Switch P. C. Board		
	273	2-D	84A80432F01	Program Switch P. C. Board		
△	274	2-C	01V11300W54	Assy., GT Control P. C. Board		
☆	274	2-C	01V14300W94	Assy., GT Control P. C. Board		
▲	274	2-C	01V11400W38	Assy., GT Control P. C. Board		
※	274	2-C	01V11300W53	Assy., GT Control P. C. Board		
◐	274	2-C	01V14300W94	Assy., GT Control P. C. Board		
★	274	2-C	01V11300W53	Assy., GT Control P. C. Board		
	277	3-C	45A80373F01	Lever, Program		
	278	3-C	45A80375F01	Lever, Switch		
	280	2-F	01T63210F06	Assy., Flywheel		
	281	3-D	49A83022F01	Pully, Idler		
	282	2-G	42A40969F01	Belt		
	283	5-E	42A80397F01	Belt		
	284	2-B	04A41345P14	Washer, Lock (M2.1)		
	285		04A41345P25	Washer, Lock (M3.1)		
	286	4-D	03D40014G12	Screw, W/Washer (M2.6 × 4)		
	287		03S44205G07	Screw, Pan (M2.6 × 5)		
	288	2-C	03S68259F06	Screw, Bind (M2.3 × 8)		
	289		03S10042W11	Screw, Pan (M1.7 × 2.5)		
	292	4-C	45A80387F01	Lever, Reel Brake		
	293	4-E	44A63196F01	Gear, Take Up		
	294	2-D	44A80382F01	Gear, Take Up		
	295	3-D	44B80379F01	Gear, Pause		
	296	2-E	44A80380F01	Gear, Reverse Act		
	297	4-D	44A80381F01	Gear, Reverse Idler		
	298	4-E	44A80383F01	Gear, Pause Idler		
	299	4-D	44A80385F01	Gear, Motor Idler		
	300	2-E	45B80388F01	Lever, Trigger		
	301	4-E	44A80384F01	Gear, Pulley		
	302	4-D	44A63197F01	Gear, RF Idler		
	303	4-E	41A80447F01	Spring, Pack		
	304	2-E	41A80449F01	Spring, Program Trigger		
	305	4-E	04A41345P04	Washer, Lock (M2.6)		

Symbol No.		Index	Part No.	Description		
	306	3-E	47A80423F01	Shaft, Change Gear		
	307	4-F	01T80390F01	Assy., Reel		
	308	3-F	01T80390F02	Assy., Reel		
	309	4-C	01T80433F01	Assy., Pinch Roller		
	310	3-C	01T80433F02	Assy., Pinch Roller		
	311	4-B	43A90918F01	Spacer, Polyslider		
	313	4-D	43A90769F01	Roller, Eject Com		
	314	4-D	30T84002F01	Wire, Parallel 2P		
	315	2-B	76T95077F01	1Chip		
	316		03S44205G42	Screw, Pan (M2.6 × 4)		

Miscellaneous

△	501	5-D	01V11700W05	Assy., Motor		
▲	501	5-D	01V93800F53	Assy., Motor		
※	501	5-D	01V11700W05	Assy., Motor		
◐	501	5-D	01V11700W05	Assy., Motor		
☆	501	5-D	01V11700W05	Assy., Motor		
★	501	5-D	01V11700W05	Assy., Motor		
△	502	2-A	88T50977F02	Head, Playback		
▲	502	2-A	88T50977F02	Head, Playback		
※	502	2-A	88T74130F02	Head, Playback		
◐	502	2-A	88T50977F02	Head, Playback		
☆	502	2-A	88T50997F02	Head, Playback		
★	502	2-A	88T74130F02	Head, Playback		
	503	3-D	01T80451F01	Assy., Keep Solenoid		
	504	1-D	40T52216F01	Switch, Micro		
	505	2-D	40T63432F01	Switch, Slide		
	506		40T71025F01	Switch, Detect		
	507	4-E	40T71025F03	Switch, Detect		
※	508	1-C	40T71025F03	Switch, Detect		
★	508	1-C	40T71025F03	Switch, Detect		

NOTE: The parts without part numbers are not supplied.

Parts List (3/3)

◓ : For GT75L02O model only, ◑ : For GT75L12O model only,
◨ : For GT75L02N model only, ◭ : For GT75L12N model only,
◆ : For GT75L22O model only, Others : Common.

Symbol No.	Index	Part No.	Description		
201	5-C	43A63281F01	Roller, Plate Base		
203	4-C	43A12105W01	Roller, Eject Arm (B)		
204	5-B	41A12411W01	Spring, Turn Eject		
205	5-C	41B80444F04	Spring		
206	5-B	04A41345P15	Washer, Lock (M1.2)		
207		04A41345P02	Washer, Lock (M1.7)		
208	3-A	01A82275F03	Assy., Rivet Plate Base		
209	4-B	45B10376W01	Slider		
210		47A63278F01	Shaft, Slider		
211	4-C	01A12405W01	Assy., Rivet Eject Arm		
213		43A12087W01	Roller, Pack Guide		
214		03S40011G47	Screw, Pan (M2 × 7)		
216	4-E	01A12378W01	Assy., Rivet Reverse		
217	3-E	44B80378F01	Gear, Change		
218	3-E	45A80366F01	Lever, Reverse Lock		
219	3-E	45A80367F01	Lever, Reverse ACT		
220	3-E	41B50444F02	Spring		
221	3-E	41B50444F03	Spring		
222		04A41345P01	Washer, Lock (M1.2)		
224	4-E	41A80447F01	Spring, Pack		
225	2-C	41B80444F01	Spring		
226	2-C	01A12406W01	Assy., Rivet Head Base ACT		
227	3-D	01A80458F02	Assy., Rivet RF Arm		
228	4-B	07B80356F02	Bracket RF Frame		
231	4-B	01A84687F01	Assy., Rivet Link		
232	2-B	76T95077F01	Chip		
233	5-D	45B12076W01	Lever, Eject		
234	3-C	41A80446F01	Spring, RF Lever		
235	4-B	41B80444F06	Spring		
236	4-E	44A63196F01	Gear, Take Up		
237	3-A	01A80459F01	Assy., Rivet Program Push		
238	4-B	07C63151F02	Holder, Cassette		
241	2-A	84T15796W01	Head P. C. Board		
242	1-B	07B12806W01	Frame, Head		
243	2-B	47A80493F01	Shaft, Head Frame		
244	2-B	43A80492F01	Roller, Head Frame		
247	2-B	41A63286F03	Spring, Pinch Roller		
248	3-B	41A63286F04	Spring, Pinch Roller		
249	2-E	44A80382F01	Gear, Take Up		
250	1-B	41A13824W01	Spring, Head		
251	2-A	03S40019G03	Screw, F−Lock (M2 × 4)		
252	3-F	45A80386F01	Lever, Swing		
253	2-B	45B12084W01	Lever, Play Solenoid		
254	4-E	30T84002F01	Wire, Metal Switch		
255	4-G	01V16100W82	Assy., Flywheel Bracket		
256		41A80450F01	Spring, Reel Clutch		
257	3-H	03A63557F02	Screw, Pan (M1.7 × 2.5)		
◓ 258	2-C	01V14500W06	Assy., GT Control P. C. Board		
◨ 258	2-C	01V14500W06	Assy., GT Control P. C. Board		
◑ 258	2-C	01V14500W48	Assy., GT Control P. C. Board		
◆ 258	2-C	01V16800W37	Assy., GT Control P. C. Board		
◭ 258	2-C	01V14500W48	Assy., GT Control P. C. Board		
259		01T94245F01	Assy., Reel		
260	4-G	01A12403W01	Assy., Rivet Bracket Reel		
261	4-E	04A41345P04	Washer, Lock (M2.6)		
262	4-E	44A80392F01	Gear, Clutch		
263	4-F	45A10318W01	Lever, Clutch		
264	4-F	43A80394F01	Bush, Clutch		
265	4-F	41A80395F01	Spring, Clutch		
266	2-E	41A80449F01	Spring, Program Trigger		
267	4-D	44A63197F01	Gear, RF Idler		
268	2-B	45A80364F01	Lever, RF Lock		
269	2-B	41B80444F05	Spring		
270	2-E	45B80388F01	Lever, Trigger		
271		01T63210F05	Assy., Flywheel		
272		04S40075G05	Washer Polyslider (M2.1)		
274	4-E	84A82646F01	Metal Switch P. C. Board		
275	4-E	44A12088W01	Gear, Motor Idler		
276	4-E	44A80383F01	Gear, Pause Idler		
277	3-D	44A80381F01	Gear, Reverse Idler		

NOTE : The parts without part numbers are not supplied.

◓ : For GT75L02O model only, ◈ : For GT75L12O model only, ◨ : For GT75L02N model only,
◭ : For GT75L12N model only, ◆ : For GT75L22O model only, Others : Common.

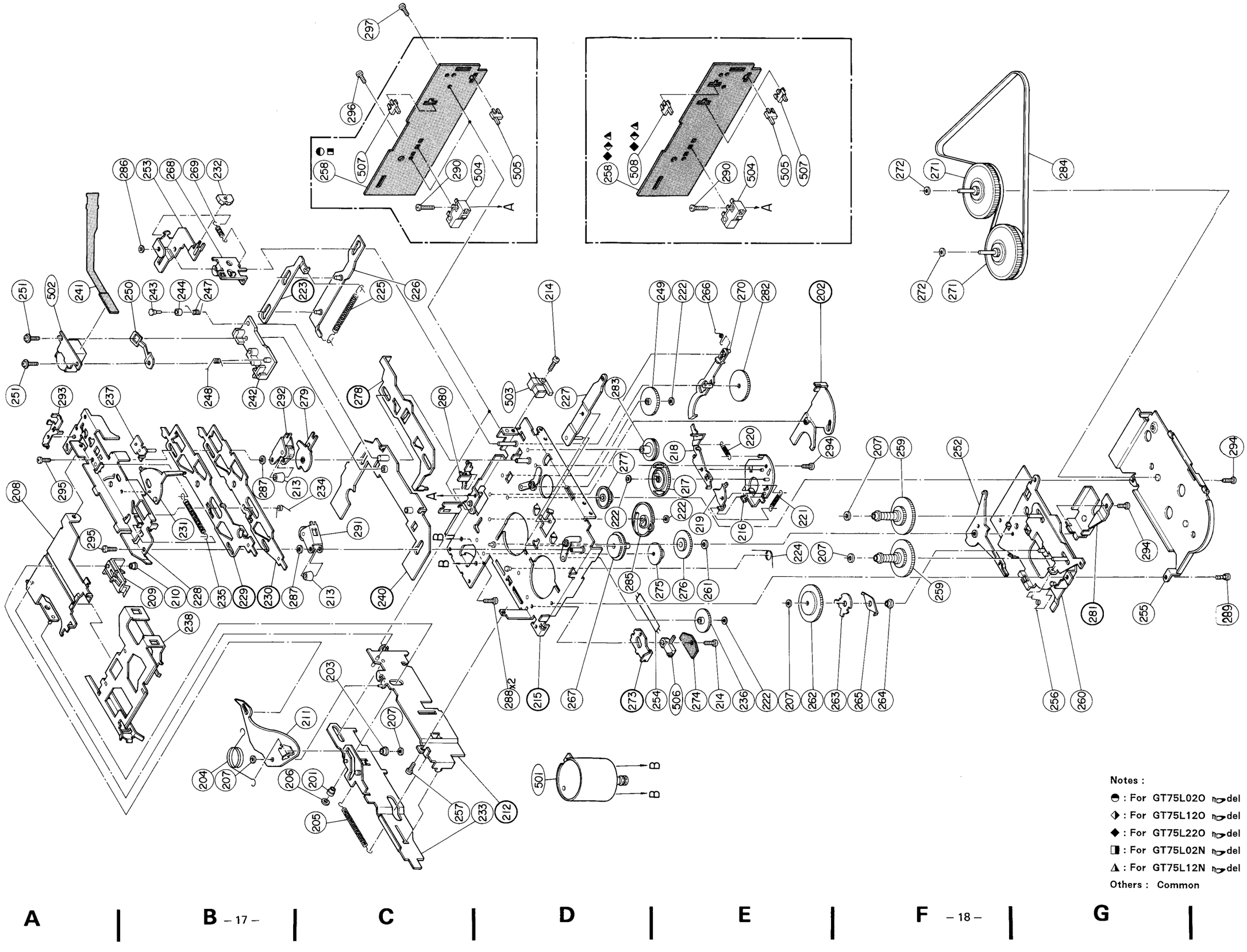
Symbol No.	Index	Part No.	Description
279	3-C	45A80373F01	Lever, Program
280	3-C	45A80375F01	Lever, Switch
282	2-E	44A80380F01	Gear, Reverse ACT
◈ 283	3-D	49A94719F01	Pully, Idler
◓ 283	3-D	49A94719F01	Pully, Idler
◨ 283	3-D	49A83022F01	Pully, Idler
◭ 283	3-D	49A83022F01	Pully, Idler
◆ 283	3-D	49A83022F01	Pulley, Idler
284		42A40969F01	Belt
285	4-D	44B80379F01	Gear, Pause
286	2-B	04A41345P14	Washer, Lock (M2.1)
287		04A41345P25	Washer, Lock (M3.1)
288	4-D	03D40014G67	Screw, W/Washer (M2.6 × 3.5)
289	2-B	03S44205G30	Screw, Pan (M2.6 × 7)
290		03S68259F06	Screw, Bind (M2.3 × 8)
291	4-C	01T15776W01	Assy., Pinch Roller
292	3-B	01T15776W02	Assy., Pinch Roller
293	3-B	45A12083W01	Lever, Switch Mute
294		03S43997P64	Screw, Pan (M1.7 × 3)
295		03S56479F27	Screw, Pan (M1.7 × 3)
296	1-C	03S44205G48	Screw, Pan (M2.6 × 5)
◈ 297		03S44205G30	Screw, Pan (M2.6 × 4)
◓ 297		03S44205G30	Screw, Pan (M2.6 × 4)
◨ 297		03S44205G30	Screw, Pan (M2.6 × 4)
◭ 297		03S44205G30	Screw, Pan (M2.6 × 4)
◆ 297		03S44205G48	Screw, Pan (M2.6 × 5)

Miscellaneous

501	5-D	01V14500W41	Assy., Motor
◓ 502	2-A	88T15795W01	Head, Playback
◈ 502	2-A	88T16375W01	Head, Playback
◨ 502	2-A	88T15795W01	Head, Playback
◭ 502	2-A	88T16375W01	Head, Playback
◆ 502	2-A	88T16153W01	Head, Playback
503		01T80451F01	Assy., Keep Solenoid
504	2-E	40T52216F01	Switch, Micro
505	2-E	40T71025F03	Switch, Detector
506		40T15222W01	Switch, Detector
507		40T15222W01	Switch, Detector
◆ 508	2-D	40T15222W01	Switch, Detector
◈ 508	2-D	40T15222W01	Switch, Detector
◭ 508	2-D	40T15222W01	Switch, Detector

NOTE: The parts without part numbers are not supplied.

Exploded View (3/3)



Notes :

◓ : For GT75L02O model only
◆◗ : For GT75L12O model only
◆ : For GT75L22O model only
◨ : For GT75L02N model only
◭ : For GT75L12N model only
Others : Common